

**SEVERN  
TRENT****STL****STL Sacramento**880 Riverside Parkway  
West Sacramento, CA 95605Tel: 916 373 5600 Fax: 916 372 1059  
www.stl-inc.com

April 10, 2006

STL SACRAMENTO PROJECT NUMBER: G6C030290  
PO/CONTRACT:Paul Rosenfeld  
Soil Water Air Protection Enterprise  
201 Wilshire Ave, Second Floor  
Santa Monica, CA 90401

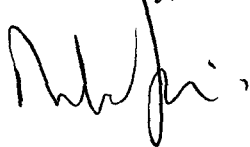
Dear Dr. Rosenfeld,

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on March 3, 2006. These samples are associated with your Florala project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4427.

Sincerely,

Nilo Ligi  
Project Manager

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## CASE NARRATIVE

### STL SACRAMENTO PROJECT NUMBER G6C030290

#### **BIOLOGIC, 8290, Dioxins/Furans, HRGC/HRM**

Sample(s): 1, 2, 3, 4, 5, 6, 7, 8

The method blank shows some hits for target analytes. All hits are well below the lower calibration limit. The chromatographic profile suggests that there may be a very small contamination from the LCS spike. All samples with hits for these analytes will be "B:" flagged.

Sample(s): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

It was noticed during the initial centrifugation that the serum did not fully separate from the red blood cell as the color of the samples were deep red.

Sample(s): 9, 10, 11, 12, 13, 14, 15

The ending standard, ST0404B from data file, 04AP068D5 had a response of -22.7% for 1,2,3,4,7,8-HxCDD between 20 and 25%. Per the method, an average response factor of the initial and ending standards for this analyte will be calculated (0.76) and applied to all associated samples with a positive result. Negative results are not impacted by this observation.

Sample(s): 9, 10, 14, 15

Field samples 9,10,14,15 from lot G6C030290 have several internal standards (IS's) with a low, failing recovery; these may be attributed to the matrix (blood serum). Rest of field samples, although passing, demonstrate a similar low recovery trend. No corrective action will be taken.

#### **BIOLOGIC, 8290, Lipids, Percent**

Sample(s): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

The %Lipid determination in blood was performed gravimetrically as hexane extractable material.

There were no other anomalies associated with this project.



### STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00173
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NEESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

\*NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

### QC Parameter Definitions

**QC Batch:** The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

**Method Blank:** An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

**Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD):** An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also used to evaluate the precision of the process.

**Duplicate Sample (DU):** Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

**Surrogates:** Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD):** An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

**Isotope Dilution:** For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

**Control Limits:** The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

## Sample Summary

### G6C030290

<u>WO#</u>	<u>Sample #</u>	<u>Client Sample ID</u>	<u>Sampling Date</u>	<u>Received Date</u>
HOLLV	1	JAMES HUGHES	3/2/2006 08:45 AM	3/3/2006 08:55 AM
HOLL2	2	KANDY CREECH	3/2/2006 09:00 AM	3/3/2006 08:55 AM
HOLL3	3	LILLIE EDWARDS	3/2/2006 09:15 AM	3/3/2006 08:55 AM
HOLL7	4	SARA THOMPSON	3/2/2006 09:30 AM	3/3/2006 08:55 AM
HOLME	5	MARVIN WILLIFORD	3/2/2006 09:50 AM	3/3/2006 08:55 AM
HOLMG	6	YANCEY BROOKS	3/2/2006 10:00 AM	3/3/2006 08:55 AM
HOLMJ	7	LORENE THOMPSON	3/2/2006 10:20 AM	3/3/2006 08:55 AM
HOLMM	8	GLENDIA FOUNTAIN	3/2/2006 10:40 AM	3/3/2006 08:55 AM
HOLMN	9	JAMES CARAWAY	3/2/2006 11:20 AM	3/3/2006 08:55 AM
HOLMQ	10	TERESA CASSADY	3/2/2006 11:35 AM	3/3/2006 08:55 AM
HOLMT	11	SHERRI DAVIS	3/2/2006 12:05 PM	3/3/2006 08:55 AM
HOLMX	12	DORTHY DEVAUGHN	3/2/2006 01:20 PM	3/3/2006 08:55 AM
HOLM4	13	JANICE MADDEN	3/2/2006 01:35 PM	3/3/2006 08:55 AM
HOLNA	14	JAMES ALLEN	3/2/2006 02:00 PM	3/3/2006 08:55 AM
HOLNF	15	JAMES D ALLEN	3/2/2006 02:15 PM	3/3/2006 08:55 AM

#### Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight



## Chain of Custody Record

Severn Trent Laboratories, Inc.

ST Sacramento  
880 Riverside Parkway  
West Sacramento CA 95605  
Phone 916-373 5600  
Fax 916 372 1059

Client Contact		Project Manager: Paul Rosenfeld Ph.D.		Site Contact: Paul Rosenfeld Ph.D.		Date: 3-2-06		COC No:	
SWAPE		Tel/Fax: 310 795-2335		Lab Contact: Nilo Ligi		Carrier: Fed Ex		of COCs	
201 Wilshire Blvd		Analysis Turnaround Time		Filtered Sample Dioxin Furan analysis in blood serum				Job No.	
Santa Monica CA 90401		Calendar (C) or Work Days (W) Standard						SDG No.	
310 795-2335 Phone		TAT if different from Below							
310 393 3898 FAX		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
Project Name: FLORALA									
Site: FLORALA ALABAMA									
P O #									
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:			
1 - James Hughes	3-2-06	0845	Blood	10	X				
2 - Kandy Creech	3-2-06	0900	Blood	10	X				
3 - Lillie Edwards	3-2-06	0915	Blood	10	X				
4 - Sara Thompson	3-2-06	0930	Blood	10	X				
5 - Marvin Williford	3-2-06	0950	Blood	10	X				
6 - Yancey Brooks	3-2-06	1000	Blood	10	X				
7 - Lorene Thompson	3-2-06	1020	Blood	10	X				
8 - Glenda Fountain	3-2-06	1040	Blood	10	X				
9 - James Caraway	3-2-06	1120	Blood	10	X				
10 - Teresa Cassidy	3-2-06	1135	Blood	10	X				
11 - Sherri Davis	3-2-06	1205	Blood	10	X				
12 Dorothy DeVaughn	3-2-06	1320	Blood	4	X				
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other (1)									
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For 2 Months			
Special Instructions/QC Requirements & Comments:									
Lowest detection limit possible. Please determine % blood lipid.									
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:				
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:				
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:				



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TRENT

STL

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880 Riverside Parkway  
West Sacramento CA 95605  
Phone 916-373 5600  
Fax 916 372 1059

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Severn Trent Laboratories, Inc.

Client Contact		Project Manager: Paul Rosenfeld Ph.D.		Site Contact: Paul Rosenfeld Ph.D.		Date: 3-2-06		COC No:	
SWAPE		Tel/Fax: 310 795-2335		Lab Contact: Nilo Ligi		Carrier: Fed Ex		of COCs	
201 Wilshire Blvd		Analysis Turnaround Time		Dioxin Furan analysis in blood serum				Job No.	
Santa Monica CA 90401		Calendar (C) or Work Days (W)						SDG No.	
310 795-2335 Phone		TAT if different from Below							
310 393 3898 FAX		<input type="checkbox"/> 2 weeks							
Project Name: FLORALA		<input type="checkbox"/> 1 week							
Site: FLORALA ALABAMA		<input type="checkbox"/> 2 days							
P O #		<input type="checkbox"/> 1 day							
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:			
13 - Janice Madden	3-2-06	1335	Blood		10	RECEIVED IN GOOD CONDITION MAR - 3 2006 IN: <i>AB</i>			
14 - James Allen	3-2-06	1400	Blood		10				
15 - James D Allen	3-2-06	1415	Blood		10				
16			Blood						
			Blood						
			Blood						
			Blood						
			Blood						
			Blood						
			Blood						
			Blood						
			Blood						
			Blood						
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other <u>10</u>									
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For <u>2</u> Months			
Special Instructions/QC Requirements & Comments:									
Lowest detection limit. Please determine % blood lipids.									
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:				
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:				
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:				

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TRENT

STL

LOT RECEIPT CHECKLIST  
STL Sacramento

CLIENT SWAP PM ML LOG # 37501  
 LOT# (QUANTIMS ID) Gle C030290 QUOTE# 109295 LOCATION WFI

DATE RECEIVED 3306 TIME RECEIVED 855 Initials ML Date 3306

DELIVERED BY ☒ FEDEX ☐ CA OVERNIGHT ☐ CLIENT  
☐ AIRBORNE ☐ GOLDENSTATE ☐ DHL  
☐ UPS ☐ BAX GLOBAL ☐ GO-GETTERS  
☐ STL COURIER ☐ COURIERS ON DEMAND  
☐ OTHER

CUSTODY SEAL STATUS ☐ INTACT ☐ BROKEN ☒ N/A

CUSTODY SEAL #(S) \_\_\_\_\_

SHIPPING CONTAINER(S) ☐ STL ☒ CLIENT ☐ N/A

TEMPERATURE RECORD (IN °C) IR ☒ 1 ☐ 3 ☐ OTHER \_\_\_\_\_

COC #(S) NA

TEMPERATURE BLANK Observed: NA Corrected: \_\_\_\_\_

SAMPLE TEMPERATURE  
 Observed: 4 5 3 Average: 3 Corrected Average: 3

COLLECTOR'S NAME: ☐ Verified from COC ☒ Not on COC

pH MEASURED ☐ YES ☐ ANOMALY ☒ N/A

LABELED BY \_\_\_\_\_

LABELS CHECKED BY \_\_\_\_\_

PEER REVIEW ☒ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING

WETCHEM ☒ N/A

VOA-ENCORES ☒ N/A

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☒ N/A

☒ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH  
 APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A

☐ Clouseau ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)\*1 ☒ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED

☐ PM NOTIFIED

Notes: COL not refrigerated

\*1 Acceptable temperature range for State of Wisconsin samples is  $\leq 4^{\circ}\text{C}$ .



**BIOLOGIC, 8290,  
Dioxins/Furans,  
HRGC/HRM**

**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: JAMES HUGHES**

Lot-Sample #...: G6C030290 - 001  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/28/06  
 Prep Batch #...: 6087532

Work Order #...: H0LLV1AA  
 Date Received...: 03/03/06  
 Analysis Date...: 03/29/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.079	1.000	0
Total TCDD	ND	0.079		0
1,2,3,7,8-PeCDD	ND	0.15	0.500	0
Total PeCDD	ND	0.15		0
1,2,3,4,7,8-HxCDD	0.12 J		0.100	0.0120
1,2,3,6,7,8-HxCDD	0.39 J		0.100	0.0390
1,2,3,7,8,9-HxCDD	0.18 J		0.100	0.0180
Total HxCDD	0.69			
1,2,3,4,6,7,8-HpCDD	0.46 J B		0.010	0.0046
Total HpCDD	0.46			
OCDD	1.8 J B		0.001	0.0018
2,3,7,8-TCDF	ND	0.060	0.100	0
Total TCDF	ND	0.060		0
1,2,3,7,8-PeCDF	ND	0.092	0.050	0
2,3,4,7,8-PeCDF	0.12 J		0.500	0.0600
Total PeCDF	0.12			
1,2,3,4,7,8-HxCDF	ND	0.19	0.100	0
1,2,3,6,7,8-HxCDF	0.16 J		0.100	0.0160
2,3,4,6,7,8-HxCDF	0.14 J		0.100	0.0140
1,2,3,7,8,9-HxCDF	0.22 J B		0.100	0.0220
Total HxCDF	0.53			
1,2,3,4,6,7,8-HpCDF	0.23 J B		0.010	0.0023
1,2,3,4,7,8,9-HpCDF	0.17 J		0.010	0.0017
Total HpCDF	0.40			
OCDF	ND	0.22	0.001	0
Total TEQ Concentration				0.1914

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	55	40 - 135
13C-1,2,3,7,8-PeCDD	68	40 - 135
13C-1,2,3,6,7,8-HxCDD	63	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	52	40 - 135
13C-OCDD	52	40 - 135
13C-2,3,7,8-TCDF	58	40 - 135
13C-1,2,3,7,8-PeCDF	59	40 - 135
13C-1,2,3,4,7,8-HxCDF	49	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	51	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/3-80/016

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-1 %Lipid: 0.171%  
 Client Sample ID: JAMES HUGHES

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		35.1	0.1	
Total TCDF	ND		35.1		
2,3,7,8-TCDD	ND		46.2	1	
Total TCDD	ND		46.2		
1,2,3,7,8-PeCDF	ND		53.8	0.05	
2,3,4,7,8-PeCDF	67.8	J		0.5	33.9
Total PeCDF	67.8				
1,2,3,7,8-PeCDD	ND		87.1	0.5	
Total PeCDD	ND		87.1		
1,2,3,4,7,8-HxCDF	ND		112	0.1	
1,2,3,6,7,8-HxCDF	94.2	J		0.1	9.42
2,3,4,6,7,8-HxCDF	81.9	J		0.1	8.19
1,2,3,7,8,9-HxCDF	132	J B		0.1	13.2
Total HxCDF	308				
1,2,3,4,7,8-HxCDD	67.8	J		0.1	6.78
1,2,3,6,7,8-HxCDD	230	J		0.1	23.0
1,2,3,7,8,9-HxCDD	105	J		0.1	10.5
Total HxCDD	403				
1,2,3,4,6,7,8-HpCDF	135	J B		0.01	1.35
1,2,3,4,7,8,9-HpCDF	99.4	J		0.01	0.99
Total HpCDF	235				
1,2,3,4,6,7,8-HpCDD	270	J B		0.01	2.70
Total HpCDD	270				
OCDF	ND		130	0.001	
OCDD	1038	J B		0.001	1.04

Total TEQ Concentration (pg/g lipid): 111.1

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Client Sample ID: KANDY CREECH

Lot-Sample #...: G6C030290 - 002  
 Date Sampled...: 03/02/06  
 Prep Date...: 03/28/06  
 Prep Batch #...: 6087532

Work Order #...: HOLL21AA  
 Date Received...: 03/03/06  
 Analysis Date...: 03/29/06  
 Dilution Factor: 1

Matrix...: BIOLOGICAL  
 Instrument: 8D5  
 Units...: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.063	1.000	0
Total TCDD	ND	0.063		0
1,2,3,7,8-PeCDD	ND	0.13	0.500	0
Total PeCDD	ND	0.13		0
1,2,3,4,7,8-HxCDD	ND	0.074	0.100	0
1,2,3,6,7,8-HxCDD	0.14 J		0.100	0.0140
1,2,3,7,8,9-HxCDD	ND	0.060	0.100	0
Total HxCDD	0.14			
1,2,3,4,6,7,8-HpCDD	0.21 J B		0.010	0.0021
Total HpCDD	0.21			
OCDD	0.92 J B		0.001	0.0009
2,3,7,8-TCDF	ND	0.050	0.100	0
Total TCDF	ND	0.050		0
1,2,3,7,8-PeCDF	ND	0.068	0.050	0
2,3,4,7,8-PeCDF	ND	0.067	0.500	0
Total PeCDF	ND	0.069		0
1,2,3,4,7,8-HxCDF	ND	0.089	0.100	0
1,2,3,6,7,8-HxCDF	ND	0.060	0.100	0
2,3,4,6,7,8-HxCDF	ND	0.055	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.062	0.100	0
Total HxCDF	ND	0.089		0
1,2,3,4,6,7,8-HpCDF	0.090 J B		0.010	0.0009
1,2,3,4,7,8,9-HpCDF	0.071 J		0.010	0.0007
Total HpCDF	0.16			
OCDF	ND	0.13	0.001	0
Total TEQ Concentration				0.0186

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	40 - 135
13C-1,2,3,7,8-PeCDD	81	40 - 135
13C-1,2,3,6,7,8-HxCDD	66	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	58	40 - 135
13C-OCDD	56	40 - 135
13C-2,3,7,8-TCDF	72	40 - 135
13C-1,2,3,7,8-PeCDF	68	40 - 135
13C-1,2,3,4,7,8-HxCDF	56	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	58	40 - 135

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/600/S7-R9/016

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-2 %Lipid: 0.117%  
 Client Sample ID: KANDY CREECH

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		42.7	0.1	
Total TCDF	ND		42.7		
2,3,7,8-TCDD	ND		53.8	1	
Total TCDD	ND		53.8		
1,2,3,7,8-PeCDF	ND		58.1	0.05	
2,3,4,7,8-PeCDF	ND		57.3	0.5	
Total PeCDF	ND		59.0		
1,2,3,7,8-PeCDD	ND		111	0.5	
Total PeCDD	ND		111		
1,2,3,4,7,8-HxCDF	ND		76.1	0.1	
1,2,3,6,7,8-HxCDF	ND		51.3	0.1	
2,3,4,6,7,8-HxCDF	ND		47.0	0.1	
1,2,3,7,8,9-HxCDF	ND		53.0	0.1	
Total HxCDF	ND		76.1		
1,2,3,4,7,8-HxCDD	ND		63.2	0.1	
1,2,3,6,7,8-HxCDD	123	J		0.1	12.31
1,2,3,7,8,9-HxCDD	ND		51.3	0.1	
Total HxCDD	123				
1,2,3,4,6,7,8-HpCDF	76.9	J B		0.01	0.769
1,2,3,4,7,8,9-HpCDF	60.7	J		0.01	0.607
Total HpCDF	138				
1,2,3,4,6,7,8-HpCDD	183	J B		0.01	1.83
Total HpCDD	183				
OCDF	ND		109	0.001	
OCDD	782	J B		0.001	0.782

Total TEQ Concentration (pg/g lipid): 16.3

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Client Sample ID: LILLIE EDWARDS

Lot-Sample #...: G6C030290 - 003  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/28/06  
 Prep Batch #...: 6087532

Work Order #...: H0LL31AA  
 Date Received...: 03/03/06  
 Analysis Date...: 03/29/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.067	1.000	0
Total TCDD	ND	0.067		0
1,2,3,7,8-PeCDD	ND	0.16	0.500	0
Total PeCDD	ND	0.16		0
1,2,3,4,7,8-HxCDD	ND	0.088	0.100	0
1,2,3,6,7,8-HxCDD	ND	0.14	0.100	0
1,2,3,7,8,9-HxCDD	ND	0.072	0.100	0
Total HxCDD	ND	0.14		0
1,2,3,4,6,7,8-HpCDD	0.33 J B		0.010	0.0033
Total HpCDD	0.33			
OCDD	1.8 J B		0.001	0.0018
2,3,7,8-TCDF	ND	0.053	0.100	0
Total TCDF	ND	0.053		0
1,2,3,7,8-PeCDF	ND	0.066	0.050	0
2,3,4,7,8-PeCDF	ND	0.066	0.500	0
Total PeCDF	ND	0.066		0
1,2,3,4,7,8-HxCDF	0.14 J B		0.100	0.0140
1,2,3,6,7,8-HxCDF	0.072 J		0.100	0.0072
2,3,4,6,7,8-HxCDF	ND	0.060	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.068	0.100	0
Total HxCDF	0.21			
1,2,3,4,6,7,8-HpCDF	ND	0.093	0.010	0
1,2,3,4,7,8,9-HpCDF	ND	0.079	0.010	0
Total HpCDF	ND	0.093		0
OCDF	ND	0.18	0.001	0
Total TEQ Concentration				0.0263

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	54	40 - 135
13C-1,2,3,7,8-PeCDD	62	40 - 135
13C-1,2,3,6,7,8-HxCDD	55	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	49	40 - 135
13C-OCDD	50	40 - 135
13C-2,3,7,8-TCDF	57	40 - 135
13C-1,2,3,7,8-PeCDF	58	40 - 135
13C-1,2,3,4,7,8-HxCDF	47	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	48	40 - 135

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/605/R-89/016

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.



## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-3 %Lipid: 0.100%  
 Client Sample ID: LILLIE EDWARDS

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		53.0	0.1	
Total TCDF	ND		53.0		
2,3,7,8-TCDD	ND		67.0	1	
Total TCDD	ND		67.0		
1,2,3,7,8-PeCDF	ND		66.0	0.05	
2,3,4,7,8-PeCDF	ND		66.0	0.5	
Total PeCDF	ND		66.0		
1,2,3,7,8-PeCDD	ND		163	0.5	
Total PeCDD	ND		163		
1,2,3,4,7,8-HxCDF	141	J B		0.1	14.10
1,2,3,6,7,8-HxCDF	72.0	J		0.1	7.20
2,3,4,6,7,8-HxCDF	ND		60.0	0.1	
1,2,3,7,8,9-HxCDF	ND		68.0	0.1	
Total HxCDF	213				
1,2,3,4,7,8-HxCDD	ND		88.0	0.1	
1,2,3,6,7,8-HxCDD	ND		136	0.1	
1,2,3,7,8,9-HxCDD	ND		72.0	0.1	
Total HxCDD	ND		136		
1,2,3,4,6,7,8-HpCDF	ND		93.0	0.01	
1,2,3,4,7,8,9-HpCDF	ND		79.0	0.01	
Total HpCDF	ND		93.0		
1,2,3,4,6,7,8-HpCDD	329	J B		0.01	3.29
Total HpCDD	329				
OCDF	ND		183	0.001	
OCDD	1803	J B		0.001	1.80

Total TEQ Concentration (pg/g lipid): 26.4

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Client Sample ID: SARA THOMPSON

Lot-Sample #...: G6C030290 - 004  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/28/06  
 Prep Batch #...: 6087532

Work Order #...: H0LL71AA  
 Date Received...: 03/03/06  
 Analysis Date...: 03/29/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.050	1.000	0
Total TCDD	ND	0.050		0
1,2,3,7,8-PeCDD	ND	0.12	0.500	0
Total PeCDD	ND	0.12		0
1,2,3,4,7,8-HxCDD	ND	0.090	0.100	0
1,2,3,6,7,8-HxCDD	ND	0.14	0.100	0
1,2,3,7,8,9-HxCDD	ND	0.073	0.100	0
Total HxCDD	ND	0.14		0
1,2,3,4,6,7,8-HpCDD	0.14 J B		0.010	0.0014
Total HpCDD	0.14			
OCDD	ND	0.71	0.001	0
2,3,7,8-TCDF	ND	0.054	0.100	0
Total TCDF	ND	0.054		0
1,2,3,7,8-PeCDF	0.13 J		0.050	0.0065
2,3,4,7,8-PeCDF	ND	0.056	0.500	0
Total PeCDF	0.13			
1,2,3,4,7,8-HxCDF	ND	0.15	0.100	0
1,2,3,6,7,8-HxCDF	0.11 J		0.100	0.0110
2,3,4,6,7,8-HxCDF	0.059 J		0.100	0.0059
1,2,3,7,8,9-HxCDF	ND	0.065	0.100	0
Total HxCDF	0.17			
1,2,3,4,6,7,8-HpCDF	0.10 J B		0.010	0.0010
1,2,3,4,7,8,9-HpCDF	ND	0.064	0.010	0
Total HpCDF	0.10			
OCDF	ND	0.14	0.001	0
Total TEQ Concentration				0.0258

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	40 - 135
13C-1,2,3,7,8-PeCDD	87	40 - 135
13C-1,2,3,6,7,8-HxCDD	71	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	66	40 - 135
13C-OCDD	70	40 - 135
13C-2,3,7,8-TCDF	78	40 - 135
13C-1,2,3,7,8-PeCDF	74	40 - 135
13C-1,2,3,4,7,8-HxCDF	63	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	66	40 - 135

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/600/3-89/016

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-4 %Lipid: 0.164%

Client Sample ID: SARA THOMPSON

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		32.9	0.1	
Total TCDF	ND		32.9		
2,3,7,8-TCDD	ND		30.5	1	
Total TCDD	ND		30.5		
1,2,3,7,8-PeCDF	79.9	J		0.05	3.99
2,3,4,7,8-PeCDF	ND		34.1	0.5	
Total PeCDF	79.9				
1,2,3,7,8-PeCDD	ND		73.8	0.5	
Total PeCDD	ND		73.8		
1,2,3,4,7,8-HxCDF	ND		92.1	0.1	
1,2,3,6,7,8-HxCDF	65.2	J		0.1	6.52
2,3,4,6,7,8-HxCDF	36.0	J		0.1	3.60
1,2,3,7,8,9-HxCDF	ND		39.6	0.1	
Total HxCDF	101.2				
1,2,3,4,7,8-HxCDD	ND		54.9	0.1	
1,2,3,6,7,8-HxCDD	ND		85.4	0.1	
1,2,3,7,8,9-HxCDD	ND		44.5	0.1	
Total HxCDD	ND		85.4		
1,2,3,4,6,7,8-HpCDF	61.0	J B		0.01	0.610
1,2,3,4,7,8,9-HpCDF	ND		39.0	0.01	
Total HpCDF	61.0				
1,2,3,4,6,7,8-HpCDD	85.4	J B		0.01	0.854
Total HpCDD	85.4				
OCDF	ND		85.4	0.001	
OCDD	ND		430	0.001	

Total TEQ Concentration (pg/g lipid): 15.58

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Client Sample ID: MARVIN WILLIFORD

Lot-Sample #...: G6C030290 - 005  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/28/06  
 Prep Batch #...: 6087532

Work Order #...: HOLME1AA  
 Date Received...: 03/03/06  
 Analysis Date...: 03/29/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.060	1.000	0
Total TCDD	ND	0.060		0
1,2,3,7,8-PeCDD	ND	0.12	0.500	0
Total PeCDD	ND	0.12		0
1,2,3,4,7,8-HxCDD	ND	0.064	0.100	0
1,2,3,6,7,8-HxCDD	ND	0.12	0.100	0
1,2,3,7,8,9-HxCDD	0.052 J		0.100	0.0052
Total HxCDD	0.052			
1,2,3,4,6,7,8-HpCDD	0.15 J B		0.010	0.0015
Total HpCDD	0.15			
OCDD	0.95 J B		0.001	0.0010
2,3,7,8-TCDF	ND	0.053	0.100	0
Total TCDF	ND	0.053		0
1,2,3,7,8-PeCDF	ND	0.063	0.050	0
2,3,4,7,8-PeCDF	ND	0.063	0.500	0
Total PeCDF	ND	0.066		0
1,2,3,4,7,8-HxCDF	ND	0.080	0.100	0
1,2,3,6,7,8-HxCDF	ND	0.042	0.100	0
2,3,4,6,7,8-HxCDF	ND	0.050	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.056	0.100	0
Total HxCDF	ND	0.080		0
1,2,3,4,6,7,8-HpCDF	0.074 J B		0.010	0.0007
1,2,3,4,7,8,9-HpCDF	ND	0.052	0.010	0
Total HpCDF	0.074			
OCDF	ND	0.082	0.001	0
Total TEQ Concentration				0.0084

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	65	40 - 135
13C-1,2,3,7,8-PeCDD	80	40 - 135
13C-1,2,3,6,7,8-HxCDD	67	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	57	40 - 135
13C-OCDD	64	40 - 135
13C-2,3,7,8-TCDF	69	40 - 135
13C-1,2,3,7,8-PeCDF	71	40 - 135
13C-1,2,3,4,7,8-HxCDF	55	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	58	40 - 135

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/675/R-89/016

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-5 %Lipid: 0.078%

Client Sample ID: MARVIN WILLIFORD

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		67.9	0.1	
Total TCDF	ND		67.9		
2,3,7,8-TCDD	ND		76.9	1	
Total TCDD	ND		76.9		
1,2,3,7,8-PeCDF	ND		80.8	0.05	
2,3,4,7,8-PeCDF	ND		80.8	0.5	
Total PeCDF	ND		84.6		
1,2,3,7,8-PeCDD	ND		154	0.5	
Total PeCDD	ND		154		
1,2,3,4,7,8-HxCDF	ND		103	0.1	
1,2,3,6,7,8-HxCDF	ND		53.8	0.1	
2,3,4,6,7,8-HxCDF	ND		64.1	0.1	
1,2,3,7,8,9-HxCDF	ND		71.8	0.1	
Total HxCDF	ND		103		
1,2,3,4,7,8-HxCDD	ND		82.1	0.1	
1,2,3,6,7,8-HxCDD	ND		151	0.1	
1,2,3,7,8,9-HxCDD	66.7	J		0.1	6.67
Total HxCDD	66.7				
1,2,3,4,6,7,8-HpCDF	94.9	J B		0.01	0.949
1,2,3,4,7,8,9-HpCDF	ND		66.7	0.01	
Total HpCDF	94.9				
1,2,3,4,6,7,8-HpCDD	187	J B		0.01	1.872
Total HpCDD	187				
OCDF	ND		105	0.001	
OCDD	1222	J B		0.001	1.222

Total TEQ Concentration (pg/g lipid): 10.71

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: YANCEY BROOKS**

Lot-Sample #...: G6C030290 - 006  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/28/06  
 Prep Batch #...: 6087532

Work Order #...: H0LMG1AA  
 Date Received...: 03/03/06  
 Analysis Date...: 03/29/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.072	1.000	0
Total TCDD	ND	0.072		0
1,2,3,7,8-PeCDD	ND	0.18	0.500	0
Total PeCDD	ND	0.18		0
1,2,3,4,7,8-HxCDD	ND	0.094	0.100	0
1,2,3,6,7,8-HxCDD	ND	0.072	0.100	0
1,2,3,7,8,9-HxCDD	ND	0.076	0.100	0
Total HxCDD	ND	0.094		0
1,2,3,4,6,7,8-HpCDD	ND	0.10	0.010	0
Total HpCDD	ND	0.10		0
OCDD	0.51 J B		0.001	0.0005
2,3,7,8-TCDF	ND	0.058	0.100	0
Total TCDF	ND	0.058		0
1,2,3,7,8-PeCDF	ND	0.087	0.050	0
2,3,4,7,8-PeCDF	ND	0.086	0.500	0
Total PeCDF	ND	0.087		0
1,2,3,4,7,8-HxCDF	0.082 J B		0.100	0.0082
1,2,3,6,7,8-HxCDF	ND	0.051	0.100	0
2,3,4,6,7,8-HxCDF	ND	0.061	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.069	0.100	0
Total HxCDF	0.082			
1,2,3,4,6,7,8-HpCDF	0.059 J B		0.010	0.0006
1,2,3,4,7,8,9-HpCDF	ND	0.070	0.010	0
Total HpCDF	0.059			
OCDF	ND	0.17	0.001	0
<b>Total TEQ Concentration</b>				<b>0.0093</b>

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	59	40 - 135
13C-1,2,3,7,8-PeCDD	67	40 - 135
13C-1,2,3,6,7,8-HxCDD	56	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	53	40 - 135
13C-OCDD	51	40 - 135
13C-2,3,7,8-TCDF	63	40 - 135
13C-1,2,3,7,8-PeCDF	60	40 - 135
13C-1,2,3,4,7,8-HxCDF	48	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	52	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/R-89/016

- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.



## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-6 %Lipid: 0.091%

Client Sample ID: YANCEY BROOKS

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		63.7	0.1	
Total TCDF	ND		63.7		
2,3,7,8-TCDD	ND		79.1	1	
Total TCDD	ND		79.1		
1,2,3,7,8-PeCDF	ND		95.6	0.05	
2,3,4,7,8-PeCDF	ND		94.5	0.5	
Total PeCDF	ND		95.6		
1,2,3,7,8-PeCDD	ND		199	0.5	
Total PeCDD	ND		199		
1,2,3,4,7,8-HxCDF	90.1	J B		0.1	9.01
1,2,3,6,7,8-HxCDF	ND		56.0	0.1	
2,3,4,6,7,8-HxCDF	ND		67.0	0.1	
1,2,3,7,8,9-HxCDF	ND		75.8	0.1	
Total HxCDF	90.1				
1,2,3,4,7,8-HxCDD	ND		103	0.1	
1,2,3,6,7,8-HxCDD	ND		79.1	0.1	
1,2,3,7,8,9-HxCDD	ND		83.5	0.1	
Total HxCDD	ND		103		
1,2,3,4,6,7,8-HpCDF	64.8	J B		0.01	0.648
1,2,3,4,7,8,9-HpCDF	ND		76.9	0.01	
Total HpCDF	64.8				
1,2,3,4,6,7,8-HpCDD	ND		110	0.01	
Total HpCDD	ND		110		
OCDF	ND		191	0.001	
OCDD	562	J B		0.001	0.562

Total TEQ Concentration (pg/g lipid): 10.22

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Client Sample ID: LORENE THOMPSON

Lot-Sample #...: G6C030290 - 007  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/28/06  
 Prep Batch #...: 6087532

Work Order #...: HOLMJ1AA  
 Date Received...: 03/03/06  
 Analysis Date...: 03/30/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.073	1.000	0
Total TCDD	ND	0.073		0
1,2,3,7,8-PeCDD	ND	0.18	0.500	0
Total PeCDD	ND	0.18		0
1,2,3,4,7,8-HxCDD	ND	0.081	0.100	0
1,2,3,6,7,8-HxCDD	ND	0.23	0.100	0
1,2,3,7,8,9-HxCDD	ND	0.066	0.100	0
Total HxCDD	ND	0.23		0
1,2,3,4,6,7,8-HpCDD	0.17 J B		0.010	0.0017
Total HpCDD	0.17			
OCDD	2.1 J B		0.001	0.0021
2,3,7,8-TCDF	ND	0.047	0.100	0
Total TCDF	ND	0.047		0
1,2,3,7,8-PeCDF	ND	0.086	0.050	0
2,3,4,7,8-PeCDF	ND	0.085	0.500	0
Total PeCDF	ND	0.086		0
1,2,3,4,7,8-HxCDF	0.23 J B		0.100	0.0230
1,2,3,6,7,8-HxCDF	ND	0.055	0.100	0
2,3,4,6,7,8-HxCDF	ND	0.066	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.074	0.100	0
Total HxCDF	0.23			
1,2,3,4,6,7,8-HpCDF	0.46 J B		0.010	0.0046
1,2,3,4,7,8,9-HpCDF	ND	0.089	0.010	0
Total HpCDF	ND	0.54		0
OCDF	0.38 J B		0.001	0.0004
Total TEQ Concentration				0.0318

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	59	40 - 135
13C-1,2,3,7,8-PeCDD	72	40 - 135
13C-1,2,3,6,7,8-HxCDD	63	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	56	40 - 135
13C-OCDD	58	40 - 135
13C-2,3,7,8-TCDF	63	40 - 135
13C-1,2,3,7,8-PeCDF	62	40 - 135
13C-1,2,3,4,7,8-HxCDF	51	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	54	40 - 135

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/605/R-89/014

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-7 %Lipid: 0.126%

Client Sample ID: LORENE THOMPSON

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		37.3	0.1	
Total TCDF	ND		37.3		
2,3,7,8-TCDD	ND		57.9	1	
Total TCDD	ND		57.9		
1,2,3,7,8-PeCDF	ND		68.3	0.05	
2,3,4,7,8-PeCDF	ND		67.5	0.5	
Total PeCDF	ND		68.3		
1,2,3,7,8-PeCDD	ND		146	0.5	
Total PeCDD	ND		146		
1,2,3,4,7,8-HxCDF	183	J B		0.1	18.25
1,2,3,6,7,8-HxCDF	ND		43.7	0.1	
2,3,4,6,7,8-HxCDF	ND		52.4	0.1	
1,2,3,7,8,9-HxCDF	ND		58.7	0.1	
Total HxCDF	183				
1,2,3,4,7,8-HxCDD	ND		64.3	0.1	
1,2,3,6,7,8-HxCDD	ND		183.3	0.1	
1,2,3,7,8,9-HxCDD	ND		52.4	0.1	
Total HxCDD	ND		183		
1,2,3,4,6,7,8-HpCDF	367	J B		0.01	3.67
1,2,3,4,7,8,9-HpCDF	ND		70.6	0.01	
Total HpCDF	ND		425		
1,2,3,4,6,7,8-HpCDD	135	J B		0.01	1.349
Total HpCDD	135				
OCDF	299	J B		0.001	0.299
OCDD	1691	J B		0.001	1.69

Total TEQ Concentration (pg/g lipid): 25.26

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: GLENDA FOUNTAIN**

Lot-Sample #...: G6C030290 - 008  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/28/06  
 Prep Batch #...: 6087532

Work Order #...: H0LMM1AA  
 Date Received...: 03/03/06  
 Analysis Date...: 03/30/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.074	1.000	0
Total TCDD	ND	0.074		0
1,2,3,7,8-PeCDD	ND	0.17	0.500	0
Total PeCDD	ND	0.17		0
1,2,3,4,7,8-HxCDD	ND	0.11	0.100	0
1,2,3,6,7,8-HxCDD	0.44 J		0.100	0.0440
1,2,3,7,8,9-HxCDD	ND	0.088	0.100	0
Total HxCDD	0.44			
1,2,3,4,6,7,8-HpCDD	0.19 J B		0.010	0.0019
Total HpCDD	ND	0.19		0
OCDD	3.6 J B		0.001	0.0036
2,3,7,8-TCDF	ND	0.057	0.100	0
Total TCDF	ND	0.057		0
1,2,3,7,8-PeCDF	ND	0.086	0.050	0
2,3,4,7,8-PeCDF	ND	0.086	0.500	0
Total PeCDF	ND	0.086		0
1,2,3,4,7,8-HxCDF	0.12 J B		0.100	0.0120
1,2,3,6,7,8-HxCDF	0.080 J		0.100	0.0080
2,3,4,6,7,8-HxCDF	ND	0.078	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.089	0.100	0
Total HxCDF	0.20			
1,2,3,4,6,7,8-HpCDF	ND	0.092	0.010	0
1,2,3,4,7,8,9-HpCDF	ND	0.094	0.010	0
Total HpCDF	ND	0.094		0
OCDF	ND	0.17	0.001	0
<b>Total TEQ Concentration</b>				<b>0.0695</b>

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	60	40 - 135
13C-1,2,3,7,8-PeCDD	70	40 - 135
13C-1,2,3,6,7,8-HxCDD	57	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	53	40 - 135
13C-OCDD	54	40 - 135
13C-2,3,7,8-TCDF	64	40 - 135
13C-1,2,3,7,8-PeCDF	62	40 - 135
13C-1,2,3,4,7,8-HxCDF	50	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	51	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/R-89/016

- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-8 %Lipid: 0.142%  
 Client Sample ID: GLEND FOUNTAIN

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		40.1	0.1	
Total TCDF	ND		40.1		
2,3,7,8-TCDD	ND		52.1	1	
Total TCDD	ND		52.1		
1,2,3,7,8-PeCDF	ND		60.6	0.05	
2,3,4,7,8-PeCDF	ND		60.6	0.5	
Total PeCDF	ND		60.6		
1,2,3,7,8-PeCDD	ND		123	0.5	
Total PeCDD	ND		123		
1,2,3,4,7,8-HxCDF	85.9	J B		0.1	8.59
1,2,3,6,7,8-HxCDF	56.3	J		0.1	5.63
2,3,4,6,7,8-HxCDF	ND		54.9	0.1	
1,2,3,7,8,9-HxCDF	ND		62.7	0.1	
Total HxCDF	142				
1,2,3,4,7,8-HxCDD	ND		76.8	0.1	
1,2,3,6,7,8-HxCDD	308	J		0.1	30.8
1,2,3,7,8,9-HxCDD	ND		62.0	0.1	
Total HxCDD	308				
1,2,3,4,6,7,8-HpCDF	ND		64.8	0.01	
1,2,3,4,7,8,9-HpCDF	ND		66.2	0.01	
Total HpCDF	ND		66.2		
1,2,3,4,6,7,8-HpCDD	132	J B		0.01	1.32
Total HpCDD	ND		132		
OCDF	ND		119	0.001	
OCDD	2546	J B		0.001	2.55

Total TEQ Concentration (pg/g lipid): 48.87

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: JAMES CARAWAY**

Lot-Sample #...: G6C030290 - 009  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/31/06  
 Prep Batch #...: 6093389

Work Order #...: H0LMN1AA  
 Date Received...: 03/03/06  
 Analysis Date...: 04/04/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.027	1.000	0
Total TCDD	ND	0.027		0
1,2,3,7,8-PeCDD	ND	0.062	0.500	0
Total PeCDD	ND	0.062		0
1,2,3,4,7,8-HxCDD	ND	0.043	0.100	0
1,2,3,6,7,8-HxCDD	ND	0.20	0.100	0
1,2,3,7,8,9-HxCDD	0.075 J B		0.100	0.0075
Total HxCDD	0.075			
1,2,3,4,6,7,8-HpCDD	0.26 J B		0.010	0.0026
Total HpCDD	0.26			
OCDD	1.6 J B		0.001	0.0016
2,3,7,8-TCDF	ND	0.021	0.100	0
Total TCDF	ND	0.021		0
1,2,3,7,8-PeCDF	0.043 J B		0.050	0.0021
2,3,4,7,8-PeCDF	ND	0.045	0.500	0
Total PeCDF	0.043			
1,2,3,4,7,8-HxCDF	0.067 J B		0.100	0.0067
1,2,3,6,7,8-HxCDF	0.051 J B		0.100	0.0051
2,3,4,6,7,8-HxCDF	0.038 J B		0.100	0.0038
1,2,3,7,8,9-HxCDF	ND	0.038	0.100	0
Total HxCDF	0.16			
1,2,3,4,6,7,8-HpCDF	ND	0.74	0.010	0
1,2,3,4,7,8,9-HpCDF	ND	0.083	0.010	0
Total HpCDF	ND	0.083		0
OCDF	ND	0.054	0.001	0
Total TEQ Concentration				0.0294

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	42	40 - 135
13C-1,2,3,7,8-PeCDD	50	40 - 135
13C-1,2,3,6,7,8-HxCDD	38 *	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	34 *	40 - 135
13C-OCDD	33 *	40 - 135
13C-2,3,7,8-TCDF	43	40 - 135
13C-1,2,3,7,8-PeCDF	39 *	40 - 135
13C-1,2,3,4,7,8-HxCDF	30 *	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	31 *	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/R-90/016

- \* Surrogate recovery is outside stated control limits.
- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J Estimated result. Result is less than the reporting limit.



## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-9 %Lipid: 0.117%  
 Client Sample ID: JAMES CARAWAY

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		18.0	0.1	
Total TCDF	ND		18.0		
2,3,7,8-TCDD	ND		23.1	1	
Total TCDD	ND		23.1		
1,2,3,7,8-PeCDF	36.8	J B		0.05	1.84
2,3,4,7,8-PeCDF	ND		38.5	0.5	
Total PeCDF	36.8				
1,2,3,7,8-PeCDD	ND		53.1	0.5	
Total PeCDD	ND		53.1		
1,2,3,4,7,8-HxCDF	57.4	J B		0.1	5.74
1,2,3,6,7,8-HxCDF	43.7	J B		0.1	4.37
2,3,4,6,7,8-HxCDF	32.5	J B		0.1	3.25
1,2,3,7,8,9-HxCDF	ND		32.5	0.1	
Total HxCDF	134				
1,2,3,4,7,8-HxCDD	ND		36.8	0.1	
1,2,3,6,7,8-HxCDD	ND		171	0.1	
1,2,3,7,8,9-HxCDD	64.2	J B		0.1	6.42
Total HxCDD	64.2				
1,2,3,4,6,7,8-HpCDF	ND		634	0.01	
1,2,3,4,7,8,9-HpCDF	ND		71.1	0.01	
Total HpCDF	ND		71.1		
1,2,3,4,6,7,8-HpCDD	220	J B		0.01	2.20
Total HpCDD	220				
OCDF	ND		46.2	0.001	
OCDD	1406	J B		0.001	1.406

Total TEQ Concentration (pg/g lipid): 25.2

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: TERESA CASSADY**

Lot-Sample #...: G6C030290 - 010  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/31/06  
 Prep Batch #...: 6093389

Work Order #...: H0LMQ1AA  
 Date Received...: 03/03/06  
 Analysis Date...: 04/04/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.023	1.000	0
Total TCDD	ND	0.023		0
1,2,3,7,8-PeCDD	ND	0.072	0.500	0
Total PeCDD	ND	0.072		0
1,2,3,4,7,8-HxCDD	ND	0.045	0.100	0
1,2,3,6,7,8-HxCDD	0.48 J		0.100	0.0480
1,2,3,7,8,9-HxCDD	0.10 J B		0.100	0.0100
Total HxCDD	0.58			
1,2,3,4,6,7,8-HpCDD	0.30 J B		0.010	0.0030
Total HpCDD	0.30			
OCDD	3.5 B		0.001	0.0035
2,3,7,8-TCDF	ND	0.020	0.100	0
Total TCDF	ND	0.020		0
1,2,3,7,8-PeCDF	ND	0.032	0.050	0
2,3,4,7,8-PeCDF	ND	0.041	0.500	0
Total PeCDF	ND	0.041		0
1,2,3,4,7,8-HxCDF	0.11 J B		0.100	0.0110
1,2,3,6,7,8-HxCDF	ND	0.083	0.100	0
2,3,4,6,7,8-HxCDF	0.030 J B		0.100	0.0030
1,2,3,7,8,9-HxCDF	0.040 J		0.100	0.0040
Total HxCDF	0.18			
1,2,3,4,6,7,8-HpCDF	ND	0.090	0.010	0
1,2,3,4,7,8,9-HpCDF	0.027 J B		0.010	0.0003
Total HpCDF	0.027			
OCDF	ND	0.052	0.001	0
Total TEQ Concentration				0.0828

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	37 *	40 - 135
13C-1,2,3,7,8-PeCDD	45	40 - 135
13C-1,2,3,6,7,8-HxCDD	35 *	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	31 *	40 - 135
13C-OCDD	29 *	40 - 135
13C-2,3,7,8-TCDF	39 *	40 - 135
13C-1,2,3,7,8-PeCDF	35 *	40 - 135
13C-1,2,3,4,7,8-HxCDF	27 *	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	28 *	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/R-89/016

- \* Surrogate recovery is outside stated control limits.
- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-10 %Lipid: 0.127%

Client Sample ID: TERESA CASSADY

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		15.7	0.1	
Total TCDF	ND		15.7		
2,3,7,8-TCDD	ND		18.1	1	
Total TCDD	ND		18.1		
1,2,3,7,8-PeCDF	ND		25.1	0.05	
2,3,4,7,8-PeCDF	ND		32.2	0.5	
Total PeCDF	ND		32.2		
1,2,3,7,8-PeCDD	ND		56.6	0.5	
Total PeCDD	ND		56.6		
1,2,3,4,7,8-HxCDF	83.3	J B		0.1	8.33
1,2,3,6,7,8-HxCDF	ND		65.2	0.1	
2,3,4,6,7,8-HxCDF	23.6	J B		0.1	2.36
1,2,3,7,8,9-HxCDF	31.4	J		0.1	3.14
Total HxCDF	140				
1,2,3,4,7,8-HxCDD	ND		35.3	0.1	
1,2,3,6,7,8-HxCDD	380	J		0.1	38.0
1,2,3,7,8,9-HxCDD	78.6	J B		0.1	7.86
Total HxCDD	459				
1,2,3,4,6,7,8-HpCDF	ND		70.7	0.01	
1,2,3,4,7,8,9-HpCDF	21.2	J B		0.01	0.212
Total HpCDF	21.2				
1,2,3,4,6,7,8-HpCDD	236	J B		0.01	2.36
Total HpCDD	236				
OCDF	ND		40.8	0.001	
OCDD	2756	B		0.001	2.76

Total TEQ Concentration (pg/g lipid): 65.03

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: SHERRI DAVIS**

Lot-Sample #...: G6C030290 - 011  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/31/06  
 Prep Batch #...: 6093389

Work Order #...: H0LMT1AA  
 Date Received...: 03/03/06  
 Analysis Date...: 04/04/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.016	1.000	0
Total TCDD	ND	0.016		0
1,2,3,7,8-PeCDD	ND	0.080	0.500	0
Total PeCDD	ND	0.080		0
1,2,3,4,7,8-HxCDD	ND	0.025	0.100	0
1,2,3,6,7,8-HxCDD	0.14 J		0.100	0.0140
1,2,3,7,8,9-HxCDD	0.027 J B		0.100	0.0027
Total HxCDD	0.16			
1,2,3,4,6,7,8-HpCDD	0.25 J B		0.010	0.0025
Total HpCDD	0.25			
OCDD	1.6 J B		0.001	0.0016
2,3,7,8-TCDF	ND	0.014	0.100	0
Total TCDF	ND	0.014		0
1,2,3,7,8-PeCDF	ND	0.017	0.050	0
2,3,4,7,8-PeCDF	0.028 J B		0.500	0.0140
Total PeCDF	0.028			
1,2,3,4,7,8-HxCDF	ND	0.042	0.100	0
1,2,3,6,7,8-HxCDF	0.026 J B		0.100	0.0026
2,3,4,6,7,8-HxCDF	0.017 J B		0.100	0.0017
1,2,3,7,8,9-HxCDF	ND	0.017	0.100	0
Total HxCDF	0.043			
1,2,3,4,6,7,8-HpCDF	ND	0.073	0.010	0
1,2,3,4,7,8,9-HpCDF	ND	0.055	0.010	0
Total HpCDF	ND	0.073		0
OCDF	ND	0.035	0.001	0
Total TEQ Concentration				0.0391

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	59	40 - 135
13C-1,2,3,7,8-PeCDD	75	40 - 135
13C-1,2,3,6,7,8-HxCDD	58	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	49	40 - 135
13C-OCDD	46	40 - 135
13C-2,3,7,8-TCDF	60	40 - 135
13C-1,2,3,7,8-PeCDF	57	40 - 135
13C-1,2,3,4,7,8-HxCDF	47	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	45	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/P-89/016

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-11 %Lipid: 0.105%  
 Client Sample ID: SHERRI DAVIS

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		13.3	0.1	
Total TCDF	ND		13.3		
2,3,7,8-TCDD	ND		15.2	1	
Total TCDD	ND		15.2		
1,2,3,7,8-PeCDF	ND		16.2	0.05	
2,3,4,7,8-PeCDF	26.7	J B		0.5	13.33
Total PeCDF	26.7				
1,2,3,7,8-PeCDD	ND		76.2	0.5	
Total PeCDD	ND		76.2		
1,2,3,4,7,8-HxCDF	ND		40.0	0.1	
1,2,3,6,7,8-HxCDF	24.8	J B		0.1	2.48
2,3,4,6,7,8-HxCDF	16.2	J B		0.1	1.619
1,2,3,7,8,9-HxCDF	ND		16.2	0.1	
Total HxCDF	41.0				
1,2,3,4,7,8-HxCDD	ND		23.8	0.1	
1,2,3,6,7,8-HxCDD	131	J		0.1	13.14
1,2,3,7,8,9-HxCDD	25.7	J B		0.1	2.57
Total HxCDD	157				
1,2,3,4,6,7,8-HpCDF	ND		69.5	0.01	
1,2,3,4,7,8,9-HpCDF	ND		52.4	0.01	
Total HpCDF	ND		69.5		
1,2,3,4,6,7,8-HpCDD	236	J B		0.01	2.36
Total HpCDD	236				
OCDF	ND		33.3	0.001	
OCDD	1561	J B		0.001	1.561

Total TEQ Concentration (pg/g lipid): 37.07

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Client Sample ID: DORTHY DEVAUGHN

Lot-Sample #...: G6C030290 - 012  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/31/06  
 Prep Batch #...: 6093389

Work Order #...: H0LMX1AA  
 Date Received...: 03/03/06  
 Analysis Date...: 04/04/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.038	1.000	0
Total TCDD	ND	0.038		0
1,2,3,7,8-PeCDD	ND	0.093	0.500	0
Total PeCDD	ND	0.093		0
1,2,3,4,7,8-HxCDD	0.13 J B		0.100	0.0130
1,2,3,6,7,8-HxCDD	0.50 J B		0.100	0.0500
1,2,3,7,8,9-HxCDD	ND	0.090	0.100	0
Total HxCDD	0.63			
1,2,3,4,6,7,8-HpCDD	1.3 J B		0.010	0.0130
Total HpCDD	1.4			
OCDD	12 B		0.001	0.0120
2,3,7,8-TCDF	ND	0.033	0.100	0
Total TCDF	ND	0.033		0
1,2,3,7,8-PeCDF	ND	0.049	0.050	0
2,3,4,7,8-PeCDF	0.067 J B		0.500	0.0330
Total PeCDF	0.067			
1,2,3,4,7,8-HxCDF	0.12 J B		0.100	0.0120
1,2,3,6,7,8-HxCDF	0.077 J B		0.100	0.0077
2,3,4,6,7,8-HxCDF	ND	0.041	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.039	0.100	0
Total HxCDF	0.20			
1,2,3,4,6,7,8-HpCDF	ND	0.14	0.010	0
1,2,3,4,7,8,9-HpCDF	ND	0.038	0.010	0
Total HpCDF	ND	0.14		0
OCDF	ND	0.10	0.001	0

Total TEQ Concentration

0.1407

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	68	40 - 135
13C-1,2,3,7,8-PeCDD	88	40 - 135
13C-1,2,3,6,7,8-HxCDD	67	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	62	40 - 135
13C-OCDD	59	40 - 135
13C-2,3,7,8-TCDF	69	40 - 135
13C-1,2,3,7,8-PeCDF	69	40 - 135
13C-1,2,3,4,7,8-HxCDF	54	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	55	40 - 135

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/3-89/016

- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.



## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-12 %Lipid: 0.203%

Client Sample ID: DORTHY DEVAUGHN

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		16.3	0.1	
Total TCDF	ND		16.3		
2,3,7,8-TCDD	ND		18.7	1	
Total TCDD	ND		18.7		
1,2,3,7,8-PeCDF	ND		24.1	0.05	
2,3,4,7,8-PeCDF	33.0	J B		0.5	16.50
Total PeCDF	33.0				
1,2,3,7,8-PeCDD	ND		45.8	0.5	
Total PeCDD	ND		45.8		
1,2,3,4,7,8-HxCDF	61.6	J B		0.1	6.16
1,2,3,6,7,8-HxCDF	37.9	J B		0.1	3.79
2,3,4,6,7,8-HxCDF	ND		20.2	0.1	
1,2,3,7,8,9-HxCDF	ND		19.2	0.1	
Total HxCDF	100				
1,2,3,4,7,8-HxCDD	63.1	J B		0.1	6.31
1,2,3,6,7,8-HxCDD	249	J B		0.1	24.9
1,2,3,7,8,9-HxCDD	ND		44.3	0.1	
Total HxCDD	312				
1,2,3,4,6,7,8-HpCDF	ND		69.0	0.01	
1,2,3,4,7,8,9-HpCDF	ND		18.7	0.01	
Total HpCDF	ND		69.0		
1,2,3,4,6,7,8-HpCDD	662	J B		0.01	6.62
Total HpCDD	690				
OCDF	ND		49.3	0.001	
OCDD	5731	B		0.001	5.73

Total TEQ Concentration (pg/g lipid): 69.98

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Client Sample ID: JANICE MADDEN

Lot-Sample #...: G6C030290 - 013  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/31/06  
 Prep Batch #...: 6093389

Work Order #...: HOLM41AA  
 Date Received...: 03/03/06  
 Analysis Date...: 04/04/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.017	1.000	0
Total TCDD	ND	0.017		0
1,2,3,7,8-PeCDD	ND	0.040	0.500	0
Total PeCDD	ND	0.040		0
1,2,3,4,7,8-HxCDD	ND	0.029	0.100	0
1,2,3,6,7,8-HxCDD	0.26 J		0.100	0.0260
1,2,3,7,8,9-HxCDD	0.052 J B		0.100	0.0052
Total HxCDD	0.31			
1,2,3,4,6,7,8-HpCDD	0.18 J B		0.010	0.0018
Total HpCDD	0.20			
OCDD	3.1 B		0.001	0.0031
2,3,7,8-TCDF	ND	0.015	0.100	0
Total TCDF	ND	0.015		0
1,2,3,7,8-PeCDF	ND	0.018	0.050	0
2,3,4,7,8-PeCDF	0.052 J B		0.500	0.0260
Total PeCDF	0.052			
1,2,3,4,7,8-HxCDF	0.060 J B		0.100	0.0060
1,2,3,6,7,8-HxCDF	0.049 J B		0.100	0.0049
2,3,4,6,7,8-HxCDF	ND	0.016	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.018	0.100	0
Total HxCDF	0.11			
1,2,3,4,6,7,8-HpCDF	ND	0.041	0.010	0
1,2,3,4,7,8,9-HpCDF	ND	0.041	0.010	0
Total HpCDF	ND	0.041		0
OCDF	ND	0.024	0.001	0
Total TEQ Concentration				0.0730

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	56	40 - 135
13C-1,2,3,7,8-PeCDD	71	40 - 135
13C-1,2,3,6,7,8-HxCDD	54	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	46	40 - 135
13C-OCDD	45	40 - 135
13C-2,3,7,8-TCDF	58	40 - 135
13C-1,2,3,7,8-PeCDF	52	40 - 135
13C-1,2,3,4,7,8-HxCDF	42	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	42	40 - 135

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/R-89/016

- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-13 %Lipid: 0.133%  
 Client Sample ID: JANICE MADDEN

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		11.3	0.1	
Total TCDF	ND		11.3		
2,3,7,8-TCDD	ND		12.8	1	
Total TCDD	ND		12.8		
1,2,3,7,8-PeCDF	ND		13.5	0.05	
2,3,4,7,8-PeCDF	39.2	J B		0.5	19.6
Total PeCDF	39.2				
1,2,3,7,8-PeCDD	ND		30.1	0.5	
Total PeCDD	ND		30.1		
1,2,3,4,7,8-HxCDF	45.4	J B		0.1	4.54
1,2,3,6,7,8-HxCDF	37.1	J B		0.1	3.71
2,3,4,6,7,8-HxCDF	ND		12.0	0.1	
1,2,3,7,8,9-HxCDF	ND		13.5	0.1	
Total HxCDF	82.7				
1,2,3,4,7,8-HxCDD	ND		21.8	0.1	
1,2,3,6,7,8-HxCDD	195	J		0.1	19.5
1,2,3,7,8,9-HxCDD	39.5	J B		0.1	3.95
Total HxCDD	235				
1,2,3,4,6,7,8-HpCDF	ND		30.8	0.01	
1,2,3,4,7,8,9-HpCDF	ND		30.8	0.01	
Total HpCDF	ND		30.8		
1,2,3,4,6,7,8-HpCDD	133	J B		0.01	1.33
Total HpCDD	149				
OCDF	ND		18.0	0.001	
OCDD	2357	B		0.001	2.36

Total TEQ Concentration (pg/g lipid): 55.0

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Client Sample ID: JAMES ALLEN

Lot-Sample #...: G6C030290 - 014  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/31/06  
 Prep Batch #...: 6093389

Work Order #...: H0LNA1AA  
 Date Received...: 03/03/06  
 Analysis Date...: 04/04/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.019	1.000	0
Total TCDD	ND	0.019		0
1,2,3,7,8-PeCDD	ND	0.042	0.500	0
Total PeCDD	ND	0.042		0
1,2,3,4,7,8-HxCDD	0.038 J		0.100	0.0038
1,2,3,6,7,8-HxCDD	0.16 J		0.100	0.0160
1,2,3,7,8,9-HxCDD	ND	0.022	0.100	0
Total HxCDD	0.20			
1,2,3,4,6,7,8-HpCDD	0.21 J B		0.010	0.0021
Total HpCDD	0.21			
OCDD	1.1 J B		0.001	0.0011
2,3,7,8-TCDF	ND	0.016	0.100	0
Total TCDF	ND	0.016		0
1,2,3,7,8-PeCDF	ND	0.019	0.050	0
2,3,4,7,8-PeCDF	ND	0.036	0.500	0
Total PeCDF	ND	0.036		0
1,2,3,4,7,8-HxCDF	0.061 J B		0.100	0.0061
1,2,3,6,7,8-HxCDF	0.034 J B		0.100	0.0034
2,3,4,6,7,8-HxCDF	ND	0.015	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.016	0.100	0
Total HxCDF	0.095			
1,2,3,4,6,7,8-HpCDF	ND	0.082	0.010	0
1,2,3,4,7,8-HpCDF	ND	0.031	0.010	0
Total HpCDF	0.042			
OCDF	ND	0.035	0.001	0
Total TEQ Concentration				0.0325

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	48	40 - 135
13C-1,2,3,7,8-PeCDD	60	40 - 135
13C-1,2,3,6,7,8-HxCDD	49	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	42	40 - 135
13C-OCDD	39 *	40 - 135
13C-2,3,7,8-TCDF	49	40 - 135
13C-1,2,3,7,8-PeCDF	46	40 - 135
13C-1,2,3,4,7,8-HxCDF	36 *	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	37 *	40 - 135

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/R-89/016

- \* Surrogate recovery is outside stated control limits.  
 B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-14 %Lipid: 0.074%  
 Client Sample ID: JAMES ALLEN

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		21.5	0.1	
Total TCDF	ND		21.5		
2,3,7,8-TCDD	ND		25.6	1	
Total TCDD	ND		25.6		
1,2,3,7,8-PeCDF	ND		25.6	0.05	
2,3,4,7,8-PeCDF	ND		49.0	0.5	
Total PeCDF	ND		48.5		
1,2,3,7,8-PeCDD	ND		56.5	0.5	
Total PeCDD	ND		56.5		
1,2,3,4,7,8-HxCDF	82.6	J B		0.1	8.26
1,2,3,6,7,8-HxCDF	46.2	J B		0.1	4.62
2,3,4,6,7,8-HxCDF	ND		20.2	0.1	
1,2,3,7,8,9-HxCDF	ND		21.5	0.1	
Total HxCDF	128				
1,2,3,4,7,8-HxCDD	51.1	J		0.1	5.11
1,2,3,6,7,8-HxCDD	215	J		0.1	21.48
1,2,3,7,8,9-HxCDD	ND		29.6	0.1	
Total HxCDD	265				
1,2,3,4,6,7,8-HpCDF	ND		110	0.01	
1,2,3,4,7,8,9-HpCDF	ND		41.7	0.01	
Total HpCDF	56.5				
1,2,3,4,6,7,8-HpCDD	284	J B		0.01	2.84
Total HpCDD	284				
OCDF	ND		47.1	0.001	
OCDD	1525	J B		0.001	1.525

Total TEQ Concentration (pg/g lipid): 43.8

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: JAMES D ALLEN**

Lot-Sample #...: G6C030290 - 015  
 Date Sampled...: 03/02/06  
 Prep Date.....: 03/31/06  
 Prep Batch #...: 6093389

Work Order #...: H0LNFI1AA  
 Date Received...: 03/03/06  
 Analysis Date...: 04/04/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.014	1.000	0
Total TCDD	ND	0.015		0
1,2,3,7,8-PeCDD	ND	0.043	0.500	0
Total PeCDD	ND	0.043		0
1,2,3,4,7,8-HxCDD	ND	0.025	0.100	0
1,2,3,6,7,8-HxCDD	0.18 J		0.100	0.0180
1,2,3,7,8,9-HxCDD	0.043 J B		0.100	0.0043
Total HxCDD	0.22			
1,2,3,4,6,7,8-HpCDD	0.18 J B		0.010	0.0018
Total HpCDD	0.20			
OCDD	2.2 B		0.001	0.0022
2,3,7,8-TCDF	ND	0.014	0.100	0
Total TCDF	ND	0.014		0
1,2,3,7,8-PeCDF	ND	0.017	0.050	0
2,3,4,7,8-PeCDF	ND	0.026	0.500	0
Total PeCDF	ND	0.026		0
1,2,3,4,7,8-HxCDF	0.053 J B		0.100	0.0053
1,2,3,6,7,8-HxCDF	0.037 J B		0.100	0.0037
2,3,4,6,7,8-HxCDF	0.017		0.100	0.0017
1,2,3,7,8,9-HxCDF	0.023 J		0.100	0.0023
Total HxCDF	0.11			
1,2,3,4,6,7,8-HpCDF	ND	0.071	0.010	0
1,2,3,4,7,8,9-HpCDF	ND	0.026	0.010	0
Total HpCDF	ND	0.071		0
OCDF	ND	0.033	0.001	0

Total TEQ Concentration 0.0393

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	50	40 - 135
13C-1,2,3,7,8-PeCDD	61	40 - 135
13C-1,2,3,6,7,8-HxCDD	50	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	42	40 - 135
13C-OCDD	39 *	40 - 135
13C-2,3,7,8-TCDF	52	40 - 135
13C-1,2,3,7,8-PeCDF	49	40 - 135
13C-1,2,3,4,7,8-HxCDF	38 *	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	38 *	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/R-89/016

- \* Surrogate recovery is outside stated control limits.
- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C030290-15 %Lipid: 0.073%  
 Client Sample ID: JAMES D ALLEN

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ (pg/g lipid)
2,3,7,8-TCDF	ND		19.3	0.1	
Total TCDF	ND		19.3		
2,3,7,8-TCDD	ND		19.3	1	
Total TCDD	ND		20.6		
1,2,3,7,8-PeCDF	ND		23.4	0.05	
2,3,4,7,8-PeCDF	ND		35.8	0.5	
Total PeCDF	ND		36.3		
1,2,3,7,8-PeCDD	ND		59.2	0.5	
Total PeCDD	ND		58.6		
1,2,3,4,7,8-HxCDF	73.2	J B		0.1	7.32
1,2,3,6,7,8-HxCDF	50.6	J B		0.1	5.06
2,3,4,6,7,8-HxCDF	23.3			0.1	2.326
1,2,3,7,8,9-HxCDF	ND		31.7	0.1	
Total HxCDF	156				
1,2,3,4,7,8-HxCDD	ND		34.4	0.1	
1,2,3,6,7,8-HxCDD	243	J		0.1	24.3
1,2,3,7,8,9-HxCDD	58.9	J B		0.1	5.89
Total HxCDD	303				
1,2,3,4,6,7,8-HpCDF	ND		97.7	0.01	
1,2,3,4,7,8,9-HpCDF	ND		35.8	0.01	
Total HpCDF	ND		97.2		
1,2,3,4,6,7,8-HpCDD	242	J B		0.01	2.42
Total HpCDD	271				
OCDF	ND		45.4	0.001	
OCDD	3021	B		0.001	3.02

Total TEQ Concentration (pg/g lipid): 50.3

B: Method Blank contamination. The associated method blank contains the target analyte below 1/2 the reporting limit but meets peak identification criteria.

J: Estimated result. Result is less than the reporting limit.

**QC DATA ASSOCIATION SUMMARY****G6C030290**

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	BIOLOGIC	SW846 8290		6087532	
	BIOLOGIC	SW846 8290		6093444	
002	BIOLOGIC	SW846 8290		6087532	
	BIOLOGIC	SW846 8290		6093444	
003	BIOLOGIC	SW846 8290		6087532	
	BIOLOGIC	SW846 8290		6093444	
004	BIOLOGIC	SW846 8290		6087532	
	BIOLOGIC	SW846 8290		6093444	
005	BIOLOGIC	SW846 8290		6087532	
	BIOLOGIC	SW846 8290		6093444	
006	BIOLOGIC	SW846 8290		6087532	
	BIOLOGIC	SW846 8290		6093444	
007	BIOLOGIC	SW846 8290		6087532	
	BIOLOGIC	SW846 8290		6093444	
008	BIOLOGIC	SW846 8290		6087532	
	BIOLOGIC	SW846 8290		6093444	
009	BIOLOGIC	SW846 8290		6093389	
	BIOLOGIC	SW846 8290		6095280	
010	BIOLOGIC	SW846 8290		6093389	
	BIOLOGIC	SW846 8290		6095280	
011	BIOLOGIC	SW846 8290		6093389	
	BIOLOGIC	SW846 8290		6095280	
012	BIOLOGIC	SW846 8290		6093389	
	BIOLOGIC	SW846 8290		6095280	
013	BIOLOGIC	SW846 8290		6093389	
	BIOLOGIC	SW846 8290		6095280	
014	BIOLOGIC	SW846 8290		6093389	
	BIOLOGIC	SW846 8290		6095280	

(Continued on next page)



**QC DATA ASSOCIATION SUMMARY****G6C030290**

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
015	BIOLOGIC	SW846 8290		6093389	
	BIOLOGIC	SW846 8290		6095280	

## METHOD BLANK REPORT

## Trace Level Organic Compounds

Client Lot #....: G6C030290  
 MB Lot-Sample #: G6C280000-532

Work Order #....: H15Q11AA

Matrix.....: BIOLOGIC

Analysis Date...: 03/29/06

Prep Date.....: 03/28/06

Dilution Factor: 1

Prep Batch #....: 6087532

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.055	pg/g	SW846 8290
Total TCDD	ND	0.055	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	0.11	pg/g	SW846 8290
Total PeCDD	ND	0.11	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.061	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	0.047	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	ND	0.054	pg/g	SW846 8290
Total HxCDD	ND	0.061	pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	0.098 J		pg/g	SW846 8290
Total HpCDD	0.098		pg/g	SW846 8290
OCDD	0.32 J		pg/g	SW846 8290
2,3,7,8-TCDF	ND	0.040	pg/g	SW846 8290
Total TCDF	ND	0.040	pg/g	SW846 8290
1,2,3,7,8-PeCDF	ND	0.056	pg/g	SW846 8290
2,3,4,7,8-PeCDF	ND	0.056	pg/g	SW846 8290
Total PeCDF	ND	0.056	pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	0.24 J		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	ND	0.072	pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	ND	0.069	pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	0.065 J		pg/g	SW846 8290
Total HxCDF	0.30		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	0.40 J		pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	ND	0.063	pg/g	SW846 8290
Total HpCDF	0.40		pg/g	SW846 8290
OCDF	0.30 J		pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	(40 - 135)
13C-1,2,3,7,8-PeCDD	88	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	77	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	69	(40 - 135)
13C-OCDD	74	(40 - 135)
13C-2,3,7,8-TCDF	81	(40 - 135)
13C-1,2,3,7,8-PeCDF	78	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	63	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	67	(40 - 135)

## NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than the reporting limit.

## METHOD BLANK REPORT

## Trace Level Organic Compounds

Client Lot #...: G6C030290  
 MB Lot-Sample #: G6D030000-389

Work Order #...: H2HK31AA

Matrix.....: BIOLOGIC

Analysis Date...: 04/04/06  
 Dilution Factor: 1

Prep Date.....: 03/31/06  
 Prep Batch #...: 6093389

PARAMETER	RESULT	DETECTION LIMIT	UNITS	METHOD
2,3,7,8-TCDD	ND	0.018	pg/g	SW846 8290
Total TCDD	ND	0.018	pg/g	SW846 8290
1,2,3,7,8-PeCDD	ND	0.025	pg/g	SW846 8290
Total PeCDD	ND	0.024	pg/g	SW846 8290
1,2,3,4,7,8-HxCDD	ND	0.022	pg/g	SW846 8290
1,2,3,6,7,8-HxCDD	ND	0.022	pg/g	SW846 8290
1,2,3,7,8,9-HxCDD	0.039 J		pg/g	SW846 8290
Total HxCDD	0.039		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDD	0.060 J		pg/g	SW846 8290
Total HpCDD	0.092		pg/g	SW846 8290
OCDD	0.12 J		pg/g	SW846 8290
2,3,7,8-TCDF	ND	0.011	pg/g	SW846 8290
Total TCDF	ND	0.011	pg/g	SW846 8290
1,2,3,7,8-PeCDF	0.020 J		pg/g	SW846 8290
2,3,4,7,8-PeCDF	0.023 J		pg/g	SW846 8290
Total PeCDF	0.043		pg/g	SW846 8290
1,2,3,4,7,8-HxCDF	0.044 J		pg/g	SW846 8290
1,2,3,6,7,8-HxCDF	0.026 J		pg/g	SW846 8290
2,3,4,6,7,8-HxCDF	0.025 J		pg/g	SW846 8290
1,2,3,7,8,9-HxCDF	ND	0.025	pg/g	SW846 8290
Total HxCDF	0.095		pg/g	SW846 8290
1,2,3,4,6,7,8-HpCDF	ND	0.042	pg/g	SW846 8290
1,2,3,4,7,8,9-HpCDF	0.058 J		pg/g	SW846 8290
Total HpCDF	0.058		pg/g	SW846 8290
OCDF	ND	0.026	pg/g	SW846 8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(40 - 135)
13C-1,2,3,7,8-PeCDD	96	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	77	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	70	(40 - 135)
13C-OCDD	73	(40 - 135)
13C-2,3,7,8-TCDF	78	(40 - 135)
13C-1,2,3,7,8-PeCDF	73	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	60	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	62	(40 - 135)

## NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Estimated result. Result is less than the reporting limit.

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## Trace Level Organic Compounds

Client Lot #....: G6C030290      Work Order #....: H15Q11AC      Matrix.....: BIOLOGIC  
 LCS Lot-Sample#: G6C280000-532  
 Prep Date.....: 03/28/06      Analysis Date...: 03/29/06  
 Prep Batch #....: 6087532  
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
2,3,7,8-TCDD	112	(50 - 150)	SW846 8290
1,2,3,7,8-PeCDD	96	(50 - 150)	SW846 8290
1,2,3,4,7,8-HxCDD	90	(50 - 150)	SW846 8290
1,2,3,6,7,8-HxCDD	89	(50 - 150)	SW846 8290
1,2,3,7,8,9-HxCDD	91	(50 - 150)	SW846 8290
1,2,3,4,6,7,8-HpCDD	105	(50 - 150)	SW846 8290
OCDD	99	(50 - 150)	SW846 8290
2,3,7,8-TCDF	121	(50 - 150)	SW846 8290
1,2,3,7,8-PeCDF	102	(50 - 150)	SW846 8290
2,3,4,7,8-PeCDF	103	(50 - 150)	SW846 8290
1,2,3,4,7,8-HxCDF	110	(50 - 150)	SW846 8290
1,2,3,6,7,8-HxCDF	111	(50 - 150)	SW846 8290
2,3,4,6,7,8-HxCDF	110	(50 - 150)	SW846 8290
1,2,3,7,8,9-HxCDF	112	(50 - 150)	SW846 8290
1,2,3,4,6,7,8-HpCDF	94	(50 - 150)	SW846 8290
1,2,3,4,7,8,9-HpCDF	95	(50 - 150)	SW846 8290
OCDF	94	(50 - 150)	SW846 8290

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	83	(40 - 135)
13C-1,2,3,7,8-PeCDD	100	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	81	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	69	(40 - 135)
13C-OCDD	73	(40 - 135)
13C-2,3,7,8-TCDF	89	(40 - 135)
13C-1,2,3,7,8-PeCDF	84	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	64	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	68	(40 - 135)

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

## Trace Level Organic Compounds

Client Lot #....: G6C030290      Work Order #....: H15Q11AC      Matrix.....: BIOLOGIC  
 LCS Lot-Sample#: G6C280000-532  
 Prep Date.....: 03/28/06      Analysis Date...: 03/29/06  
 Prep Batch #....: 6087532  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
2,3,7,8-TCDD	20.0	22.3	pg/g	112	SW846 8290
1,2,3,7,8-PeCDD	100	95.5	pg/g	96	SW846 8290
1,2,3,4,7,8-HxCDD	100	90.3	pg/g	90	SW846 8290
1,2,3,6,7,8-HxCDD	100	88.7	pg/g	89	SW846 8290
1,2,3,7,8,9-HxCDD	100	91.1	pg/g	91	SW846 8290
1,2,3,4,6,7,8-HpCDD	100	105	pg/g	105	SW846 8290
OCDD	200	199	pg/g	99	SW846 8290
2,3,7,8-TCDF	20.0	24.2	pg/g	121	SW846 8290
1,2,3,7,8-PeCDF	100	102	pg/g	102	SW846 8290
2,3,4,7,8-PeCDF	100	103	pg/g	103	SW846 8290
1,2,3,4,7,8-HxCDF	100	110	pg/g	110	SW846 8290
1,2,3,6,7,8-HxCDF	100	111	pg/g	111	SW846 8290
2,3,4,6,7,8-HxCDF	100	110	pg/g	110	SW846 8290
1,2,3,7,8,9-HxCDF	100	112	pg/g	112	SW846 8290
1,2,3,4,6,7,8-HpCDF	100	94.5	pg/g	94	SW846 8290
1,2,3,4,7,8,9-HpCDF	100	95.0	pg/g	95	SW846 8290
OCDF	200	189	pg/g	94	SW846 8290

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	83	(40 - 135)
13C-1,2,3,7,8-PeCDD	100	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	81	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	69	(40 - 135)
13C-OCDD	73	(40 - 135)
13C-2,3,7,8-TCDF	89	(40 - 135)
13C-1,2,3,7,8-PeCDF	84	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	64	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	68	(40 - 135)

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## Trace Level Organic Compounds

Client Lot #....: G6C030290      Work Order #....: H2HK31AC      Matrix.....: BIOLOGIC  
 LCS Lot-Sample#: G6D030000-389  
 Prep Date.....: 03/31/06      Analysis Date...: 04/04/06  
 Prep Batch #....: 6093389  
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
2,3,7,8-TCDD	111	(50 - 150)	SW846 8290
1,2,3,7,8-PeCDD	99	(50 - 150)	SW846 8290
1,2,3,4,7,8-HxCDD	124	(50 - 150)	SW846 8290
1,2,3,6,7,8-HxCDD	97	(50 - 150)	SW846 8290
1,2,3,7,8,9-HxCDD	98	(50 - 150)	SW846 8290
1,2,3,4,6,7,8-HpCDD	104	(50 - 150)	SW846 8290
OCDD	107	(50 - 150)	SW846 8290
2,3,7,8-TCDF	126	(50 - 150)	SW846 8290
1,2,3,7,8-PeCDF	103	(50 - 150)	SW846 8290
2,3,4,7,8-PeCDF	110	(50 - 150)	SW846 8290
1,2,3,4,7,8-HxCDF	113	(50 - 150)	SW846 8290
1,2,3,6,7,8-HxCDF	112	(50 - 150)	SW846 8290
2,3,4,6,7,8-HxCDF	115	(50 - 150)	SW846 8290
1,2,3,7,8,9-HxCDF	117	(50 - 150)	SW846 8290
1,2,3,4,6,7,8-HpCDF	102	(50 - 150)	SW846 8290
1,2,3,4,7,8,9-HpCDF	105	(50 - 150)	SW846 8290
OCDF	97	(50 - 150)	SW846 8290

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(40 - 135)
13C-1,2,3,7,8-PeCDD	95	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	75	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	69	(40 - 135)
13C-OCDD	67	(40 - 135)
13C-2,3,7,8-TCDF	79	(40 - 135)
13C-1,2,3,7,8-PeCDF	73	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	60	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	62	(40 - 135)

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

## Trace Level Organic Compounds

Client Lot #....: G6C030290      Work Order #....: H2HK31AC      Matrix.....: BIOLOGIC  
 LCS Lot-Sample#: G6D030000-389  
 Prep Date.....: 03/31/06      Analysis Date...: 04/04/06  
 Prep Batch #....: 6093389  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
2,3,7,8-TCDD	6.67	7.41	pg/g	111	SW846 8290
1,2,3,7,8-PeCDD	33.3	32.9	pg/g	99	SW846 8290
1,2,3,4,7,8-HxCDD	33.3	41.3	pg/g	124	SW846 8290
1,2,3,6,7,8-HxCDD	33.3	32.4	pg/g	97	SW846 8290
1,2,3,7,8,9-HxCDD	33.3	32.5	pg/g	98	SW846 8290
1,2,3,4,6,7,8-HpCDD	33.3	34.7	pg/g	104	SW846 8290
OCDD	66.7	71.0	pg/g	107	SW846 8290
2,3,7,8-TCDF	6.67	8.39	pg/g	126	SW846 8290
1,2,3,7,8-PeCDF	33.3	34.2	pg/g	103	SW846 8290
2,3,4,7,8-PeCDF	33.3	36.6	pg/g	110	SW846 8290
1,2,3,4,7,8-HxCDF	33.3	37.6	pg/g	113	SW846 8290
1,2,3,6,7,8-HxCDF	33.3	37.3	pg/g	112	SW846 8290
2,3,4,6,7,8-HxCDF	33.3	38.4	pg/g	115	SW846 8290
1,2,3,7,8,9-HxCDF	33.3	38.9	pg/g	117	SW846 8290
1,2,3,4,6,7,8-HpCDF	33.3	34.1	pg/g	102	SW846 8290
1,2,3,4,7,8,9-HpCDF	33.3	35.0	pg/g	105	SW846 8290
OCDF	66.7	64.6	pg/g	97	SW846 8290

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	(40 - 135)
13C-1,2,3,7,8-PeCDD	95	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	75	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	69	(40 - 135)
13C-OCDD	67	(40 - 135)
13C-2,3,7,8-TCDF	79	(40 - 135)
13C-1,2,3,7,8-PeCDF	73	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	60	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	62	(40 - 135)

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

**SEVERN  
TRENT****STL**

**STL Sacramento**  
880 Riverside Parkway  
West Sacramento, CA 95605

Tel: 916 373 5600 Fax: 916 372 1059  
[www.stl-inc.com](http://www.stl-inc.com)

April 4, 2006

STL SACRAMENTO PROJECT NUMBER: G6C060130  
PO/CONTRACT:

Paul Rosenfeld  
Soil Water Air Protection Enterprise  
201 Wilshire Ave, Second Floor  
Santa Monica, CA 90401

Dear Dr. Rosenfeld,

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on March 6, 2006. These samples are associated with your Florala project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4427.

Sincerely,



Nilo Ligi  
Project Manager



## **TABLE OF CONTENTS**

### **STL SACRAMENTO PROJECT NUMBER G6C060130**

Case Narrative

STL Sacramento Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

BIOLOGIC, 8290, Dioxins/Furans, HRGC/HRM

Samples: 1, 2, 3, 4, 5, 6

Sample Data Sheets

Method Blank Reports

Laboratory QC Reports

BIOLOGIC, 8290, Lipids, Percent (8290),

Samples: 1, 2, 3, 4, 5, 6

Sample Data Sheets

Method Blank Reports

Laboratory QC Reports

**CASE NARRATIVE**

**STL SACRAMENTO PROJECT NUMBER G6C060130**

**BIOLOGIC, 8290, Dioxins/Furans, HRGC/HRM**

Sample(s): 1, 2, 3, 4, 5, 6

The ending standard, ST0328I from data file, 28MR06A8D5 had a response of - 20.8% for 1,2,3,4,7,8-HxCDD between 20 and 25%. Per the method, an average response factor of the initial and ending standards for this analyte will be calculated (0.75) and applied to all associated samples with a positive result. Negative results are not impacted by this observation.

Sample(s): 1, 2, 3, 4, 5, 6

The method blank shows some hits for target analytes. All hits are well below the lower calibration limit. The chromatographic profile suggests that there may be a very small contamination from the LCS spike. All samples with hits for these analytes will be "B:" flagged

**BIOLOGIC, 8290, Lipids, Percent (8290),**

Sample(s): 1, 2, 3, 4, 5, 6

The %Lipid determination in blood was performed gravimetrically as hexane extractable material.

There were no other anomalies associated with this project.



### STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

\*NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

### QC Parameter Definitions

**QC Batch:** The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

**Method Blank:** An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

**Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD):** An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

**Duplicate Sample (DU):** Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

**Surrogates:** Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD):** An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

**Isotope Dilution:** For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

**Control Limits:** The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

## Sample Summary

### G6C060130

<u>WO#</u>	<u>Sample #</u>	<u>Client Sample ID</u>	<u>Sampling Date</u>	<u>Received Date</u>
H0N1R	1	SANDRA COBB	3/3/2006 09:05 AM	3/6/2006 09:10 AM
H0N1V	2	RICKY PHILLIPS	3/3/2006 09:20 AM	3/6/2006 09:10 AM
H0N1X	3	THOMAS DOUGLAS	3/3/2006 10:10 AM	3/6/2006 09:10 AM
H0N12	4	CHARLIE HILL, JR	3/3/2006 10:30 AM	3/6/2006 09:10 AM
H0N13	5	DEBORAH REYNOLDS	3/3/2006 12:20 PM	3/6/2006 09:10 AM
H0N15	6	GINGER CRAVEY	3/3/2006 01:00 PM	3/6/2006 09:10 AM

#### Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight

**Severn Trent Laboratories, Inc.**

[illegible]

SEVERN  
TRENT

STL

LOT RECEIPT CHECKLIST  
STL Sacramento

CLIENT Swape PM NXL LOG # 37540 69295 03/6/06  
 LOT# (QUANTIMS ID) G6C060130 QUOTE# 69295 LOCATION WFI

DATE RECEIVED 3/6/06 TIME RECEIVED 0910

Initials CU Date 3/6/06

DELIVERED BY ☒ FEDEX ☐ CA OVERNIGHT ☐ CLIENT  
☐ AIRBORNE ☐ GOLDENSTATE ☐ DHL  
☐ UPS ☐ BAX GLOBAL ☐ GO-GETTERS  
☐ STL COURIER ☐ COURIERS ON DEMAND  
☐ OTHER

CUSTODY SEAL STATUS ☐ INTACT ☐ BROKEN ☒ N/A

CUSTODY SEAL #(S) \_\_\_\_\_

SHIPPING CONTAINER(S) ☐ STL ☒ CLIENT ☐ N/A

TEMPERATURE RECORD (IN °C) IR 1 ☒ 3 ☐ OTHER \_\_\_\_\_

COC #(S) \_\_\_\_\_

TEMPERATURE BLANK Observed: N/A Corrected: \_\_\_\_\_

SAMPLE TEMPERATURE

Observed: 2 4 5 Average: 4 Corrected Average: 4

COLLECTOR'S NAME: ☐ Verified from COC ☒ Not on COC

pH MEASURED ☐ YES ☐ ANOMALY ☒ N/A

LABELED BY.....

LABELS CHECKED BY.....

PEER REVIEW ☒ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING

WETCHEM ☒ N/A

VOA-ENCORES ☒ N/A

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☒ N/A

☒ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A

☐ Clouseau ☐ TEMPERATURE EXCEEDED (2 °C - 6 °C)\* ☒ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

Notes: \_\_\_\_\_

**BIOLOGIC, 8290,  
Dioxins/Furans,  
HRGC/HRM**

**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: SANDRA COBB**

Lot-Sample #...: G6C060130 - 001  
 Date Sampled...: 03/03/06  
 Prep Date.....: 03/22/06  
 Prep Batch #...: 6085040

Work Order #...: H0N1R1AA  
 Date Received...: 03/06/06  
 Analysis Date...: 03/28/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.076	1.000	0
Total TCDD	ND	0.076		0
1,2,3,7,8-PeCDD	ND	0.16	0.500	0
Total PeCDD	ND	0.16		0
1,2,3,4,7,8-HxCDD	ND	0.18	0.100	0
1,2,3,6,7,8-HxCDD	ND	0.29	0.100	0
1,2,3,7,8,9-HxCDD	ND	0.17	0.100	0
Total HxCDD	ND	0.29		0
1,2,3,4,6,7,8-HpCDD	0.64 J		0.010	0.0064
Total HpCDD	0.64			
OCDD	2.5 J B		0.001	0.0025
2,3,7,8-TCDF	ND	0.068	0.100	0
Total TCDF	ND	0.068		0
1,2,3,7,8-PeCDF	0.15 J		0.050	0.0075
2,3,4,7,8-PeCDF	ND	0.11	0.500	0
Total PeCDF	0.15			
1,2,3,4,7,8-HxCDF	0.30 J		0.100	0.0300
1,2,3,6,7,8-HxCDF	0.22 J		0.100	0.0220
2,3,4,6,7,8-HxCDF	ND	0.16	0.100	0
1,2,3,7,8,9-HxCDF	0.29 J		0.100	0.0290
Total HxCDF	0.50			
1,2,3,4,6,7,8-HpCDF	0.28 J B		0.010	0.0028
1,2,3,4,7,8,9-HpCDF	0.23 J		0.010	0.0023
Total HpCDF	0.51			
OCDF	0.37 J B		0.001	0.0004
Total TEQ Concentration				0.1029

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	64	40 - 135
13C-1,2,3,7,8-PeCDD	77	40 - 135
13C-1,2,3,6,7,8-HxCDD	63	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	54	40 - 135
13C-OCDD	58	40 - 135
13C-2,3,7,8-TCDF	60	40 - 135
13C-1,2,3,7,8-PeCDF	72	40 - 135
13C-1,2,3,4,7,8-HxCDF	55	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	60	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dioxins and furans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; 1625/R-89/016

Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 Estimated result. Result is less than the reporting limit.



## Soil Water Air Protection Enterprise

## Lipids, Percent (8290)

Client Sample ID: SANDRA COBB

Lot-Sample #...: G6C060130 - 001  
Date Sampled...: 03/03/06  
Prep Date.....: 03/22/06  
Prep Batch #...: 6085042

Work Order #...: H0N1R1AC  
Date Received...: 03/06/06  
Analysis Date...: 04/03/06  
Dilution Factor: 1

Matrix....: BIOLOGICAL  
Instrument: NA  
Units.....: %  
% Moisture:

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION LIMIT</u>	<u>TEF FACTOR</u>	<u>TEQ CONCENTRATION</u>
Percent Lipids	0.18	0.10		

## Total TEQ Concentration

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/R-80/016

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C060130-1 % Lipid: 0.18%  
 Client Sample ID: SANDRA COBB

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ Concentration
2,3,7,8-TCDF	ND		37	0.1	
Total TCDF	ND		37		
2,3,7,8-TCDD	ND		42	1	
Total TCDD	ND		42		
1,2,3,7,8-PeCDF	81	J		0.05	4.0
Total PeCDF	81				
2,3,4,7,8-PeCDF	ND		62	0.5	
1,2,3,7,8-PeCDD	ND		88	0.5	
Total PeCDD	ND		88		
1,2,3,4,7,8-HxCDF	170	J		0.1	17
1,2,3,6,7,8-HxCDF	120	J		0.1	12
2,3,4,6,7,8-HxCDF	ND		88	0.1	
1,2,3,7,8,9-HxCDF	160	J		0.1	16
Total HxCDF	280				
1,2,3,4,7,8-HxCDD	ND		97	0.1	
1,2,3,6,7,8-HxCDD	ND		161	0.1	
1,2,3,7,8,9-HxCDD	ND		96	0.1	
Total HxCDD	ND		161		
1,2,3,4,6,7,8-HpCDF	160	J B		0.01	1.6
1,2,3,4,7,8,9-HpCDF	130	J		0.01	1.3
Total HpCDF	280				
1,2,3,4,6,7,8-HpCDD	350			0.01	3.5
Total HpCDD	350				
OCDF	200	J B		0.001	0.20
OCDD	1400	B		0.001	1.4
Total TEQ Concentration					57

B Method Blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: RICKY PHILLIPS**

Lot-Sample #...: G6C060130 - 002  
 Date Sampled...: 03/03/06  
 Prep Date.....: 03/22/06  
 Prep Batch #...: 6085040

Work Order #...: H0N1V1AA  
 Date Received...: 03/06/06  
 Analysis Date...: 03/29/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.072	1.000	0
Total TCDD	ND	0.072		0
1,2,3,7,8-PeCDD	ND	0.18	0.500	0
Total PeCDD	ND	0.18		0
1,2,3,4,7,8-HxCDD	ND	0.12	0.100	0
1,2,3,6,7,8-HxCDD	0.15 J		0.100	0.0150
1,2,3,7,8,9-HxCDD	ND	0.099	0.100	0
Total HxCDD	0.15			
1,2,3,4,6,7,8-HpCDD	0.24 J		0.010	0.0024
Total HpCDD	0.24			
OCDD	1.5 J B		0.001	0.0015
2,3,7,8-TCDF	ND	0.067	0.100	0
Total TCDF	ND	0.067		0
1,2,3,7,8-PeCDF	ND	0.079	0.050	0
2,3,4,7,8-PeCDF	ND	0.079	0.500	0
Total PeCDF	ND	0.080		0
1,2,3,4,7,8-HxCDF	ND	0.095	0.100	0
1,2,3,6,7,8-HxCDF	ND	0.076	0.100	0
2,3,4,6,7,8-HxCDF	ND	0.091	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.10	0.100	0
Total HxCDF	ND	0.10		0
1,2,3,4,6,7,8-HpCDF	ND	0.082	0.010	0
1,2,3,4,7,8,9-HpCDF	ND	0.089	0.010	0
Total HpCDF	ND	0.089		0
OCDF	ND	0.14	0.001	0
<b>Total TEQ Concentration</b>				<b>0.0189</b>

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	66	40 - 135
13C-1,2,3,7,8-PeCDD	74	40 - 135
13C-1,2,3,6,7,8-HxCDD	56	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	55	40 - 135
13C-OCDD	58	40 - 135
13C-2,3,7,8-TCDF	60	40 - 135
13C-1,2,3,7,8-PeCDF	72	40 - 135
13C-1,2,3,4,7,8-HxCDF	46	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	53	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; 1675/3-29/0116

Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Lipids, Percent (8290)

Client Sample ID: RICKY PHILLIPS

Lot-Sample #...: G6C060130 - 002  
Date Sampled...: 03/03/06  
Prep Date.....: 03/22/06  
Prep Batch #...: 6085042

Work Order #...: H0N1V1AC  
Date Received...: 03/06/06  
Analysis Date...: 04/03/06  
Dilution Factor: 1

Matrix....: BIOLOGICAL  
Instrument: NA  
Units.....: %  
% Moisture:

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION LIMIT</u>	<u>TEF FACTOR</u>	<u>TEQ CONCENTRATION</u>
Percent Lipids	0.25	0.10		

## Total TEQ Concentration

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/R-89/016

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C060130-2 % Lipid: 0.25%  
 Client Sample ID: RICKY PHILLIPS

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ Concentration
2,3,7,8-TCDF	ND		27	0.1	
Total TCDF	ND		27		
2,3,7,8-TCDD	ND		29	1	
Total TCDD	ND		29		
1,2,3,7,8-PeCDF	ND		31	0.05	
2,3,4,7,8-PeCDF	ND		31		
Total PeCDF	ND		32	0.5	
1,2,3,7,8-PeCDD	ND		69	0.5	
Total PeCDD	ND		69		
1,2,3,4,7,8-HxCDF	ND		38	0.1	
1,2,3,6,7,8-HxCDF	ND		30	0.1	
2,3,4,6,7,8-HxCDF	ND		36	0.1	
1,2,3,7,8,9-HxCDF	ND		41	0.1	
Total HxCDF	ND		41		
1,2,3,4,7,8-HxCDD	ND		48	0.1	
1,2,3,6,7,8-HxCDD	59	J		0.1	5.9
1,2,3,7,8,9-HxCDD	ND		39	0.1	
Total HxCDD	59				
1,2,3,4,6,7,8-HpCDF	ND		32	0.01	
1,2,3,4,7,8,9-HpCDF	ND		35	0.01	
Total HpCDF	ND		35		
1,2,3,4,6,7,8-HpCDD	97	J		0.01	0.97
Total HpCDD	97				
OCDF	ND		54	0.001	
OCDD	580	J B		0.001	0.58

Total TEQ Concentration 7.4

B Method Blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than the reporting limit.

**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: THOMAS DOUGLAS**

Lot-Sample #....: G6C060130 - 003  
 Date Sampled....: 03/03/06  
 Prep Date.....: 03/22/06  
 Prep Batch #....: 6085040

Work Order #....: H0N1X1AA  
 Date Received...: 03/06/06  
 Analysis Date...: 03/29/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.087	1.000	0
Total TCDD	ND	0.087		0
1,2,3,7,8-PeCDD	ND	0.22	0.500	0
Total PeCDD	ND	0.22		0
1,2,3,4,7,8-HxCDD	ND	0.14	0.100	0
1,2,3,6,7,8-HxCDD	0.21 J		0.100	0.0210
1,2,3,7,8,9-HxCDD	ND	0.11	0.100	0
Total HxCDD	0.21			
1,2,3,4,6,7,8-HpCDD	0.38 J		0.010	0.0038
Total HpCDD	0.38			
OCDD	1.8 J B		0.001	0.0018
2,3,7,8-TCDF	ND	0.076	0.100	0
Total TCDF	ND	0.076		0
1,2,3,7,8-PeCDF	ND	0.091	0.050	0
2,3,4,7,8-PeCDF	ND	0.090	0.500	0
Total PeCDF	ND	0.091		0
1,2,3,4,7,8-HxCDF	0.25 J		0.100	0.0250
1,2,3,6,7,8-HxCDF	0.12 J		0.100	0.0120
2,3,4,6,7,8-HxCDF	0.10 J		0.100	0.0100
1,2,3,7,8,9-HxCDF	ND	0.11	0.100	0
Total HxCDF	0.48			
1,2,3,4,6,7,8-HpCDF	0.45 J B		0.010	0.0045
1,2,3,4,7,8,9-HpCDF	ND	0.10	0.010	0
Total HpCDF	0.45			
OCDF	0.73 J B		0.001	0.0007
Total TEQ Concentration				0.0788

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	55	40 - 135
13C-1,2,3,7,8-PeCDD	63	40 - 135
13C-1,2,3,6,7,8-HxCDD	50	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	46	40 - 135
13C-OCDD	48	40 - 135
13C-2,3,7,8-TCDF	50	40 - 135
13C-1,2,3,7,8-PeCDF	63	40 - 135
13C-1,2,3,4,7,8-HxCDF	44	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	50	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated benzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; 3/5/7,89/016

- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Lipids, Percent (8290)

Client Sample ID: THOMAS DOUGLAS

Lot-Sample #...: G6C060130 - 003  
Date Sampled...: 03/03/06  
Prep Date.....: 03/22/06  
Prep Batch #...: 6085042

Work Order #...: H0N1X1AC  
Date Received...: 03/06/06  
Analysis Date...: 04/03/06  
Dilution Factor: 1

Matrix.....: BIOLOGICAL  
Instrument: NA  
Units.....: %  
% Moisture:

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION LIMIT</u>	<u>TEF FACTOR</u>	<u>TEQ CONCENTRATION</u>
Percent Lipids	0.22	0.10		

## Total TEQ Concentration

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/675/R-90/016

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C060130-3 % Lipid: 0.22%  
 Client Sample ID: THOMAS DOUGLAS

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ Concentration
2,3,7,8-TCDF	ND		34	0.1	
Total TCDF	ND		34		
2,3,7,8-TCDD	ND		39	1	
Total TCDD	ND		39		
1,2,3,7,8-PeCDF	ND		41	0.05	
2,3,4,7,8-PeCDF	ND		41		
Total PeCDF	ND		41	0.5	
1,2,3,7,8-PeCDD	ND		98	0.5	
Total PeCDD	ND		98		
1,2,3,4,7,8-HxCDF	110	J		0.1	11
1,2,3,6,7,8-HxCDF	55	J		0.1	5.5
2,3,4,6,7,8-HxCDF	46	J		0.1	4.6
1,2,3,7,8,9-HxCDF	ND		50	0.1	
Total HxCDF	210				
1,2,3,4,7,8-HxCDD	ND		63	0.1	
1,2,3,6,7,8-HxCDD	95	J		0.1	9.5
1,2,3,7,8,9-HxCDD	ND		51	0.1	
Total HxCDD	95				
1,2,3,4,6,7,8-HpCDF	200	J B		0.01	2.0
1,2,3,4,7,8,9-HpCDF	ND		45	0.01	
Total HpCDF	200				
1,2,3,4,6,7,8-HpCDD	170	J		0.01	1.7
Total HpCDD	170				
OCDF	330	J B		0.001	0.33
OCDD	820	J B		0.001	0.82
Total TEQ Concentration					35

B Method Blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than the reporting limit.



**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: CHARLIE HILL, JR**

Lot-Sample #...: G6C060130 - 004  
 Date Sampled...: 03/03/06  
 Prep Date.....: 03/22/06  
 Prep Batch #...: 6085040

Work Order #...: H0N121AA  
 Date Received...: 03/06/06  
 Analysis Date...: 03/29/06  
 Dilution Factor: 1

Matrix....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.087	1.000	0
Total TCDD	ND	0.087		0
1,2,3,7,8-PeCDD	ND	0.21	0.500	0
Total PeCDD	ND	0.21		0
1,2,3,4,7,8-HxCDD	ND	0.12	0.100	0
1,2,3,6,7,8-HxCDD	ND	0.21	0.100	0
1,2,3,7,8,9-HxCDD	ND	0.098	0.100	0
Total HxCDD	ND	0.21		0
1,2,3,4,6,7,8-HpCDD	0.22 J		0.010	0.0022
Total HpCDD	0.22			
OCDD	ND	1.2	0.001	0
2,3,7,8-TCDF	ND	0.086	0.100	0
Total TCDF	ND	0.086		0
1,2,3,7,8-PeCDF	ND	0.10	0.050	0
2,3,4,7,8-PeCDF	ND	0.099	0.500	0
Total PeCDF	ND	0.10		0
1,2,3,4,7,8-HxCDF	ND	0.12	0.100	0
1,2,3,6,7,8-HxCDF	ND	0.074	0.100	0
2,3,4,6,7,8-HxCDF	ND	0.088	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.099	0.100	0
Total HxCDF	ND	0.12		0
1,2,3,4,6,7,8-HpCDF	0.17 J B		0.010	0.0017
1,2,3,4,7,8,9-HpCDF	ND	0.074	0.010	0
Total HpCDF	0.41			
OCDF	ND	0.20	0.001	0
Total TEQ Concentration				0.0039

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	55	40 - 135
13C-1,2,3,7,8-PeCDD	63	40 - 135
13C-1,2,3,6,7,8-HxCDD	51	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	47	40 - 135
13C-OCDD	48	40 - 135
13C-2,3,7,8-TCDF	52	40 - 135
13C-1,2,3,7,8-PeCDF	60	40 - 135
13C-1,2,3,4,7,8-HxCDF	44	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	50	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA 600/3-89/016

- L Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Lipids, Percent (8290)

Client Sample ID: CHARLIE HILL, JR

Lot-Sample #...: G6C060130 - 004  
Date Sampled...: 03/03/06  
Prep Date.....: 03/22/06  
Prep Batch #...: 6085042

Work Order #...: H0N121AC  
Date Received...: 03/06/06  
Analysis Date...: 04/03/06  
Dilution Factor: 1

Matrix....: BIOLOGICAL  
Instrument: NA  
Units.....: %  
% Moisture:

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION LIMIT</u>	<u>TEF FACTOR</u>	<u>TEQ CONCENTRATION</u>
Percent Lipids	0.19	0.10		

## Total TEQ Concentration

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/3-R-90/016

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C060130-4 % Lipid: 0.19%  
 Client Sample ID: CHARLIE HILL, JR

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ Concentration
2,3,7,8-TCDF	ND		46	0.1	
Total TCDF	ND		46		
2,3,7,8-TCDD	ND		47	1	
Total TCDD	ND		47		
1,2,3,7,8-PeCDF	ND		54	0.05	
2,3,4,7,8-PeCDF	ND		53		
Total PeCDF	ND		54	0.5	
1,2,3,7,8-PeCDD	ND		110	0.5	
Total PeCDD	ND		110		
1,2,3,4,7,8-HxCDF	ND		62	0.1	
1,2,3,6,7,8-HxCDF	ND		40	0.1	
2,3,4,6,7,8-HxCDF	ND		47	0.1	
1,2,3,7,8,9-HxCDF	ND		53	0.1	
Total HxCDF	ND		62		
1,2,3,4,7,8-HxCDD	ND		64	0.1	
1,2,3,6,7,8-HxCDD	ND		110	0.1	
1,2,3,7,8,9-HxCDD	ND		52	0.1	
Total HxCDD	ND		110		
1,2,3,4,6,7,8-HpCDF	91	J B		0.01	0.91
1,2,3,4,7,8,9-HpCDF	ND		40	0.01	
Total HpCDF	220				
1,2,3,4,6,7,8-HpCDD	120	J		0.01	1.2
Total HpCDD	120				
OCDF	ND		110	0.001	
OCDD	ND		640	0.001	

Total TEQ Concentration 2.1

B Method Blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Client Sample ID: DEBORAH REYNOLDS

Lot-Sample #...: G6C060130 - 005  
 Date Sampled...: 03/03/06  
 Prep Date...: 03/22/06  
 Prep Batch #...: 6085040

Work Order #...: H0N131AA  
 Date Received...: 03/06/06  
 Analysis Date...: 03/29/06  
 Dilution Factor: 1

Matrix...: BIOLOGICAL  
 Instrument: 8D5  
 Units...: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.097	1.000	0
Total TCDD	ND	0.097		0
1,2,3,7,8-PeCDD	ND	0.23	0.500	0
Total PeCDD	ND	0.23		0
1,2,3,4,7,8-HxCDD	ND	0.13	0.100	0
1,2,3,6,7,8-HxCDD	ND	0.10	0.100	0
1,2,3,7,8,9-HxCDD	ND	0.11	0.100	0
Total HxCDD	ND	0.13		0
1,2,3,4,6,7,8-HpCDD	ND	0.22	0.010	0
Total HpCDD	ND	0.22		0
<b>OCDD</b>	<b>1.6</b>	<b>J B</b>	<b>0.001</b>	<b>0.0016</b>
2,3,7,8-TCDF	ND	0.081	0.100	0
Total TCDF	ND	0.081		0
1,2,3,7,8-PeCDF	ND	0.11	0.050	0
2,3,4,7,8-PeCDF	ND	0.11	0.500	0
Total PeCDF	ND	0.11		0
1,2,3,4,7,8-HxCDF	ND	0.16	0.100	0
1,2,3,6,7,8-HxCDF	ND	0.066	0.100	0
2,3,4,6,7,8-HxCDF	ND	0.079	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.089	0.100	0
Total HxCDF	ND	0.16		0
<b>1,2,3,4,6,7,8-HpCDF</b>	<b>0.31</b>	<b>J B</b>	<b>0.010</b>	<b>0.0031</b>
1,2,3,4,7,8,9-HpCDF	ND	0.096	0.010	0
<b>Total HpCDF</b>	<b>0.31</b>			
<b>OCDF</b>	<b>0.47</b>	<b>J B</b>	<b>0.001</b>	<b>0.0005</b>
<b>Total TEQ Concentration</b>				<b>0.0052</b>

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	54	40 - 135
13C-1,2,3,7,8-PeCDD	60	40 - 135
13C-1,2,3,6,7,8-HxCDD	47	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	49	40 - 135
13C-OCDD	52	40 - 135
13C-2,3,7,8-TCDF	49	40 - 135
13C-1,2,3,7,8-PeCDF	61	40 - 135
13C-1,2,3,4,7,8-HxCDF	42	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	49	40 - 135

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; 75/3.89/016

- L Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

## Soil Water Air Protection Enterprise

## Lipids, Percent (8290)

Client Sample ID: DEBORAH REYNOLDS

Lot-Sample #...: G6C060130 - 005  
Date Sampled...: 03/03/06  
Prep Date.....: 03/22/06  
Prep Batch #...: 6085042

Work Order #...: H0N131AC  
Date Received...: 03/06/06  
Analysis Date...: 04/03/06  
Dilution Factor: 1

Matrix....: BIOLOGICAL  
Instrument: NA  
Units.....: %  
% Moisture:

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION LIMIT</u>	<u>TEF FACTOR</u>	<u>TEQ CONCENTRATION</u>
Percent Lipids	0.20	0.10		

## Total TEQ Concentration

## Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/R-89/016

## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C060130-5 % Lipid: 0.20%

Client Sample ID: DEBORAH REYNOLDS

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ Concentration
2,3,7,8-TCDF	ND		42	0.1	
Total TCDF	ND		42		
2,3,7,8-TCDD	ND		50	1	
Total TCDD	ND		50		
1,2,3,7,8-PeCDF	ND		55	0.05	
2,3,4,7,8-PeCDF	ND		54		
Total PeCDF	ND		55	0.5	
1,2,3,7,8-PeCDD	ND		120	0.5	
Total PeCDD	ND		120		
1,2,3,4,7,8-HxCDF	ND		82	0.1	
1,2,3,6,7,8-HxCDF	ND		34	0.1	
2,3,4,6,7,8-HxCDF	ND		41	0.1	
1,2,3,7,8,9-HxCDF	ND		46	0.1	
Total HxCDF	ND		82		
1,2,3,4,7,8-HxCDD	ND		68	0.1	
1,2,3,6,7,8-HxCDD	ND		52	0.1	
1,2,3,7,8,9-HxCDD	ND		55	0.1	
Total HxCDD	ND		68		
1,2,3,4,6,7,8-HpCDF	160	J B		0.01	1.60
1,2,3,4,7,8,9-HpCDF	ND		49	0.01	
Total HpCDF	160				
1,2,3,4,6,7,8-HpCDD	ND		110	0.01	
Total HpCDD	ND		110		
OCDF	240	J B		0.001	0.24
OCDD	841	J B		0.001	0.84
Total TEQ Concentration					2.7

B Method Blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than the reporting limit.

**Soil Water Air Protection Enterprise**  
**Dioxins/Furans, HRGC/HRMS (8290)**

**Client Sample ID: GINGER CRAVEY**

Lot-Sample #...: G6C060130 - 006  
 Date Sampled...: 03/03/06  
 Prep Date.....: 03/22/06  
 Prep Batch #...: 6085040

Work Order #...: H0N151AA  
 Date Received...: 03/06/06  
 Analysis Date...: 03/29/06  
 Dilution Factor: 1

Matrix.....: BIOLOGICAL  
 Instrument: 8D5  
 Units.....: pg/g  
 % Moisture:

PARAMETER	RESULT	DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND	0.092	1.000	0
Total TCDD	ND	0.092		0
1,2,3,7,8-PeCDD	ND	0.22	0.500	0
Total PeCDD	ND	0.22		0
1,2,3,4,7,8-HxCDD	ND	0.12	0.100	0
1,2,3,6,7,8-HxCDD	0.34 J		0.100	0.0340
1,2,3,7,8,9-HxCDD	ND	0.097	0.100	0
Total HxCDD	0.34			
1,2,3,4,6,7,8-HpCDD	1.5 J		0.010	0.0150
Total HpCDD	1.5			
OCDD	5.4 B		0.001	0.0054
2,3,7,8-TCDF	ND	0.074	0.100	0
Total TCDF	ND	0.074		0
1,2,3,7,8-PeCDF	ND	0.10	0.050	0
2,3,4,7,8-PeCDF	ND	0.10	0.500	0
Total PeCDF	ND	0.10		0
1,2,3,4,7,8-HxCDF	0.30 J		0.100	0.0300
1,2,3,6,7,8-HxCDF	0.15 J		0.100	0.0150
2,3,4,6,7,8-HxCDF	ND	0.085	0.100	0
1,2,3,7,8,9-HxCDF	ND	0.066	0.100	0
Total HxCDF	0.45			
1,2,3,4,6,7,8-HpCDF	0.71 J B		0.010	0.0071
1,2,3,4,7,8,9-HpCDF	ND	0.062	0.010	0
Total HpCDF	0.87			
OCDF	0.75 J B		0.001	0.0008
Total TEQ Concentration				0.1073

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	62	40 - 135
13C-1,2,3,7,8-PeCDD	73	40 - 135
13C-1,2,3,6,7,8-HxCDD	63	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	56	40 - 135
13C-OCDD	57	40 - 135
13C-2,3,7,8-TCDF	56	40 - 135
13C-1,2,3,7,8-PeCDF	67	40 - 135
13C-1,2,3,4,7,8-HxCDF	52	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	59	40 - 135

**Notes:**

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA 543/R-89/016

- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.

Soil Water Air Protection Enterprise  
Lipids, Percent (8290)

Client Sample ID: GINGER CRAVEY

Lot-Sample #...: G6C060130 - 006  
Date Sampled...: 03/03/06  
Prep Date.....: 03/22/06  
Prep Batch #...: 6085042

Work Order #...: H0N151AC  
Date Received...: 03/06/06  
Analysis Date...: 04/03/06  
Dilution Factor: 1

Matrix.....: BIOLOGICAL  
Instrument: NA  
Units.....: %  
% Moisture:

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION LIMIT</u>	<u>TEF FACTOR</u>	<u>TEQ CONCENTRATION</u>
Percent Lipids	0.20	0.10		

Total TEQ Concentration

Notes:

TEF values are cited in U.S. Environmental Protection Agency, (1989) Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 update. U.S. Environmental Protection Agency, Risk Assessment forum, Washington, DC; EPA/625/3-R9/016



## Soil Water Air Protection Enterprise

## Dioxins/Furans, HRGC/HRMS (8290)

Sample ID: G6C060130-6 % Lipid: 0.20%  
 Client Sample ID: GINGER CRAVEY

Analyte	Result (pg/g lipid)	Flag	EDL (pg/g lipid)	TEF Factor	TEQ Concentration
2,3,7,8-TCDF	ND		37	0.1	
Total TCDF	ND		37		
2,3,7,8-TCDD	ND		46	1	
Total TCDD	ND		46		
1,2,3,7,8-PeCDF	ND		51	0.05	
Total PeCDF	ND		51		
2,3,4,7,8-PeCDF	ND		50	0.5	
1,2,3,7,8-PeCDD	ND		110	0.5	
Total PeCDD	ND		110		
1,2,3,4,7,8-HxCDF	150	J		0.1	15
1,2,3,6,7,8-HxCDF	74	J		0.1	7.4
2,3,4,6,7,8-HxCDF	ND		42	0.1	
1,2,3,7,8,9-HxCDF	ND		33	0.1	
Total HxCDF	220				
1,2,3,4,7,8-HxCDD	ND		59	0.1	
1,2,3,6,7,8-HxCDD	170	J		0.1	17
1,2,3,7,8,9-HxCDD	ND		48	0.1	
Total HxCDD	170				
1,2,3,4,6,7,8-HpCDF	350	J B		0.01	3.5
1,2,3,4,7,8,9-HpCDF	ND		31	0.01	
Total HpCDF	430				
1,2,3,4,6,7,8-HpCDD	760	J		0.01	7.6
Total HpCDD	760				
OCDF	370	J B		0.001	0.37
OCDD	2700	B		0.001	2.7

Total TEQ Concentration 54

B Method Blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than the reporting limit.